# DOWNTOWN NORTH AT KNIGHTDALE STATION

N SMITHFIELD ROAD KNIGHTDALE, NORTH CAROLINA

# EARLY GRADING

PHASE 1

PROJECT NUMBER: AGN-21002

DATE: MAY 5, 2023

CASE NUMBER: 791148

ZMA-13-22

ORDINANCE #: 23-01-18-003

REVISED: NOVEMBER 3, 2023

**ZONING CONDITIONS (ZMA-13-22)** 

- 1. RESIDENTIAL DRIVEWAYS SHALL BE A MINIMUM OF 18-FEET LONG. 2. TOWNHOME LOTS SHALL BE A MINIMUM OF 18-FEET WIDE.
- 3. REAR SETBACKS FOR ALL RESIDENTIAL LOTS SHALL BE A MINIMUM OF 18-FEET. 4. NO LANDSCAPED BUFFERS SHALL BE PROVIDED, HOWEVER ALLEY SCREENING SHALL BE PROVIDED AS INDICATED ON THE MASTER PLAN.
- 5. ALLEY SEPARATION MAY BE REDUCED TO AS LITTLE AS 50-FEET AS INDICATED ON THE MASTER PLAN. 6. THE RADIUS OF ALLEYS MAY BE REDUCED, AS INDICATED ON THE MASTER PLAN. 7. ARCHITECTURAL STANDARDS ARE PROVIDED FOR ALL BUILDING TYPES AS INDICATED IN THE PUD
- 8. THE APPLICANT AGREES THAT AN ELEMENT OF THE UTILITY ALLOCATION AND ANNEXATION AGREEMENT INCLUDE A PROVISION FOR FUTURE TOWN INVESTMENT. THIS INVESTMENT MAY INCLUDE, BUT IS NOT LIMITED TO, INFRASTRUCTURE, PARKING FACILITIES, STREETSCAPE ELEMENTS, STORMWATER CONTROL MEASURES, AND PUBLIC ART, CONSIDERATION FOR THIS INVESTMENT MA INCLUDE, BUT IS NOT LIMITED TO, INCREASED DENSITY, EXPEDITED MIXED-USE PHASING SCHEDULES ADDITIONAL STREETSCAPE ELEMENTS, TRANSPORTATION/TRANSIT IMPROVEMENTS AND INCREASED ARCHITECTURAL DESIGN/CONTROL. SHOULD THE TOWN CHOOSE NOT TO MAKE ANY SUCH INVESTMENT THIS CONDITION WILL NOT LIMIT OR DELAY THE DEVELOPMENT OF THE PROPERTY AS OUTLINED IN THE PLANNED UNIT DEVELOPMENT AND SUBJECT TO ALL OTHER ZONING CONDITIONS. NOTHING IN THIS CONDITION SHOULD OBLIGATE THE TOWN TO MAKE ANY SUCH INVESTMENT.
- 9. SHOULD THE DEVELOPER ACQUIRE ADDITIONAL LAND ADJACENT OR WITHIN A QUARTER MILE (.25) TO THE EXISTING PLANNED UNIT DEVELOPMENT ZONED HIGHWAY BUSINESS (HB) OR NEIGHBORHOOD MIXED-USE (NMX), THOSE PARCELS MAY BE INCORPORATED INTO THE DOWNTOWN NORTH PLANNED UNIT DEVELOPMENT SUBJECT TO A REZONING TO APPLY THE PLANNED UNIT DEVELOPMENT ONLY. THIS REZONING WILL NOT REQUIRE A SITE-SPECIFIC DEVELOPMENT PLAN OR ADDITIONAL STUDY UNTIL SUCJ TIME THAT A SITE PLAN IS SUBMITTED FOR ADMINISTRATIVE APPROVAL. THE DEVELOPMENT OF THE PARCELS SHOULD BE SUBJECT TO SITE PLAN REVIEW IN ACCORDANCE WITH THE PLANNED UNIT DEVELOPMENT INCLUDING THE ALLOWABLE USES, DESIGN GUIDELINES, AND PRECEDENT IMAGERY OF THE TOWN CENTER DISTRICT'S GATEWAY SUBDISTRICT STANDARDS.

# CITY OF RALEIGH PUBLIC UTILITIES CONDITIONS OF APPROVAL:

- 1. A PETITION FOR ANNEXATION INTO THE CITY LIMITS SHALL BE SUBMITTED IN ACCORDANCE WITH CITY COUNCIL POLICY FOR EXTENSION OF UTILITY SERVICE TO PROPERTIES CURRENTLY OUTSIDE OF THE CITY
- 2. CONSTRUCTION DRAWINGS MUST BE APPROVED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT FOR ALL PUBLIC WATER, PUBLIC SEWER AND/OR PRIVATE SEWER EXTENSIONS PRIOR TO
- 3. A PLAT MUST BE RECORDED AT THE WAKE COUNTY REGISTER OF DEEDS OFFICE FOR ALL UTILITY
- 4. A DOWNSTREAM SEWER CAPACITY STUDY IN COMPLIANCE WITH CORPUD HANDBOOK SHALL BE SUBMITTED BY THE PROJECT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION
- THE DEVELOPER SHALL PROVIDE A LETTER OR E-MAIL FROM ANY PRIVATE UTILITY COMPANY AUTHORIZING NEW WATER AND SEWER MAIN ENCROACHMENTS ACROSS EXISTING TRANSMISSION **EASEMENTS PRIOR TO CONCURRENT APPROVAL**

# ATTENTION CONTRACTORS

The Construction Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 996-4540 at least **twenty four hours** prior to beginning any of their construction.

Failure to notify both City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for Inspection, Install a Downstream Plug, have Permitted Plans on the Jobsite, or any other Violation of City of Raleigh Standards will result in a Fine and Possible Exclusion from future work in the City of Raleigh.

| SITE AREA                             | GROSS AREA  | <b>\</b> :  |            | 26.98 AC                                     |
|---------------------------------------|---|---|------------|--|
| (PHASE 1)                             | PUBLIC R/W DEDICATION:  |   | ۱:         | 6.55 AC                                      |
|                                       | NET AREA:   | NET AREA:   |            | 20.43 AC                                     |
| EROSION CONTROL AREA<br>(STAGE 1 & 2) | STAGE 1 AN  | D 2 DISTURB                                       | ED AREA:   | 24.84 AC.                                    |
| EXISTING ZONING                       | PUD - NMX   |   |            |  |
| WATERSHED<br>CLASSIFICATION           | LOWER NEU   | SE RIVER  |            |  |
| RIVER BASIN                           | NEUSE   |   |            |  |
| FEMA DATA                             | FIRM PANEL  | . #372017540                                      | OOK, DATED | 7/19/2022                                    |
| EXISTING USE                          | VACANT  |   |            |  |
| PROPOSED USE<br>(PHASE 1)             | NMX - SINGLE FAMILY DETACHED, TOWNHOMES   |   |            |  |
| DENSITY<br>(PHASE 1)                  | NMX  147 UNITS / 26.98 AC = 5.45 DU/AC  SINGLE FAMILY = 45 (4 BEDROOM) UNITS  8 (5 BEDROOM) UNITS  TOWNHOMES = 65 (3 BEDROOM) UNITS  29 (4 BEDROOM) UNITS |   |            |  |
| PARKING<br>(PHASE 1)                  | REQUIRED  | 2/UNIT x 177 UNITS = 354 SPACES                   |            |  |
|                                       | PROPOSED  | 2/UNIT x 1<br>ON-STREET                           |            | 354 SPACES<br>ES                             |
| OPEN SPACE                            | REQUIRED  | N/A PER PUD CONDITION                             |            |  |
| (PHASE 1)                             | PROPOSED  | 2.02 ACRES W/ PHASE 1                             |            |  |
|                                       |   | *SEE SHEET C2.00 FOR OPEN SPACE PROGRAMMING TABLE |            |  |
| TREE SAVE<br>(OVERALL DEVELOPMENT)    | REQUIRED  | 5% PER PUD CONDITION                              |            |  |
|                                       | PROPOSED  | 5%  |            |  |
| CONNECTIVITY                          | REQUIRED  |   |            |  |
| (OVERALL DEVELOPMENT)                 | PROPOSED  |   |            | IODES)                                       |
| ESTIMATED WASTEWATER                  | SINGLE FAM  | IILY HOMES  | 40 (4 BEI  | DROOM) UNITS X 300 GPD = 1 <b>2,000 GPD</b>  |
| FLOW RATES<br>(15A NCAC 02T .0114)    |   |   | 13 (5 BED  | DROOM) UNITS X 375 GPD = <b>4,875 GPD</b>    |
| (DUACE 1)                             | TOWNHOM   | FS  | 55 (3 BFI  | DROOM) LINITS X 225 GPD = 1 <b>2.375 GPD</b> |

1754239634, 1754333504, 1754335778, 1754337666, 1754450090

|                                 | TOTAL GPD = <b>40,9</b> 9  |  |  |  |
|---------------------------------|--|--|--|--|
| WATER ALLOCATION POINTS         |  |  |  |  |
| REQUIRED POINTS                 | 50 POINTS (ALL PHASES)   |  |  |  |
| PROPOSED POINTS                 | 79 POINTS (ALL PHASES)<br>(50 BASE POINTS (MIXED USE) + 29 BONUS POINTS) |  |  |  |
| ARCHITECTURAL DESIGN STANDARDS  | 15 POINTS  |  |  |  |
| ANY OTHER POOL (FUTURE AMENITY) | 1 POINT  |  |  |  |
| ON-STREET PUBLIC PARKING        | 4 POINTS   |  |  |  |
| CLUBHOUSE (FUTURE AMENITY)      | 5 POINTS   |  |  |  |
| PUBLIC ART (FUTURE PHASE)       | 4 POINTS   |  |  |  |

**TOWNHOMES** 

55 (3 BEDROOM) UNITS X 225 GPD = 1**2,375 GPD** 

39 (4 BEDROOM) UNITS X 300 GPD = **11,700 GPD** 

RTAIN ITEMS WITHIN THESE PLANS HAVE BEEN PRODUCE N COLOR FOR CLARITY OF THE PLANS. THESE PLANS MUST B



# SEE SHEET CO.01 FOR ALL PROJECT, SITE, GRADING, STORM DRAINAGE AND UTILITY NOTES

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT TOWN OF KNIGHTDALE, CITY OF RALEIGH PUBLIC UTILITIES, AND NCDOT (WHERE APPLICABLE) ENGINEERING DESIGN AND CONSTRUCTION STANDARDS

# SITE PERMITTING APPROVAL

# Water and Sewer Permits (If applicable)

City of Raleigh Public Utilities Department Permit # \_\_\_\_\_

The City of Raleigh consents to the connection and extension of the City's Public Sewer System as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Professional Design Engineer Certification. These improvements shall be constructed in accordance with the following Utilities Handbook. City of Raleigh Public Utilities Department Permit # \_S-\_\_\_\_

The City of Raleigh consents to the connection and extension of the City's Public Water System as shown on this plan. The checked and found to be applicable to this project. All exceptions to the applicable Town standards have been previously material and Construction methods used for this project shall conform to the standards and specifications of the City's Public approved by the Town of Knightdale and said exceptions are shown on Sheet(s) \_\_\_\_\_\_ of these drawings. Utilities Handbook. City of Raleigh Public Utilities Department Permit # W-

he City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

# CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Plans for the proposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction is not to be considered to represent total compliance with all legal requirements for development and construction. The property owner, design consultants, and contractors are each responsible for compliance with all applicable City, State and Federal laws. This specific authorization below is not a permit, nor shall it be construed to permit any violation of City, State or Federal Law. All Construction must be in accordance with all Local, State,

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval

City of Raleigh Review Officer

**SHEET INDEX** 

C1.00 Existing Conditions Plan

Erosion Control Plan - Area "C" - Stage 2

C6.50 Erosion Control Details

C6.51 Erosion Control Details

50.01 Site Details
50.02 Storm Details
50.03 Water Details
50.04 Water Details
50.05 Sanitary Sewer Details
50.00 ScM "A" Plan View
50.01 SCM "A" Details
50.02 SCM "A" Details
50.03 SCM "A" Details
50.04 SCM "A" Details
50.05 SCM "A" Details
50.06 SCM "A" Details
50.07 SCM "A" Details
50.08 SCM "A" Details
50.09 SCM "A" Landscape Plan
50.00 Landscape Plan Area "A"
50.00 Landscape Plan Area "B"

drawings and with the Standard Specifications of the Town of Knightdale.

\_, PE, certify that the Standard Specifications of the Town of Knightdale have been thoroughly

Town Approved Standards Shall Control. In the event of a conflict or

the North Carolina State Building Code.

plans for this project.

inconsistency between these construction drawings and the Town of Knightdale's

Approved Standards for this project, the Approved Standards shall control. Town of Knightdale Approved Standards shall mean all development documents necessary

for approval for the Property including, but not limited to, any special use permit,

Knightdale Standard Specification and Details Manual and applicable provisions of

Town Certification. This design has been reviewed by the Engineer for the Town

These plans are approved by the Town of Knightdale and serve as construction

requirements established in the Standard Specifications of the Town of Knightdale.

FINAL DRAWING - RELEASED FOR CONSTRUCTION

of Knightdale, and to the best of my knowledge and belief, it conforms to the

subdivision plan, site plan, subdivision plat(s), phasing schedule, Development

Agreement, Utility Allocation Agreement, Annexation Agreement, the Town of

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# **CONTACT**

TYLER PROBST probst@mcadamsco.com PHONE: 919. 287. 0844

# **CLIENT**

ALLIANCE GROUP OF NC, LLC 7208 FALLS OF NEUSE RD, SUITE 103 RALEIGH, NORTH CAROLINA 27615 **JACOB ANDERSON** PHONE: 919. 239. 9486



# **PROJECT DIRECTORY**

JPM SOUTH DEVELOPMENT 7208 FALLS OF NEUSE RD, SUITE 101 RALEIGH, NORTH CAROLINA 27615 JOHN MYERS PHONE: 919. 306. 3330



# **REVISIONS**

NO. DATE

- 1 08. 18. 2023 REVISIONS PER TOK COMMENTS
- 2 09. 22. 2023 EC REVISIONS PER TOK COMMENTS
- 3 10. 11. 2023 REVISIONS PER TOK COMMENTS
- 4 10. 23. 2023 EC REVISIONS PER TOK COMMENTS
- 5 11. 03. 2023 REVISION TO APPROVED EC

# CONSTRUCTION **DRAWINGS FOR:**

DOWNTOWN NORTH AT KNIGHTDALE STATION - PHASE 1 N SMITHFIELD ROAD KNIGHTDALE, NORTH CAROLINA PROJECT NUMBER: AGN-21002

-US 64 BUSINESS, US 64 BUSINESS, KNIGHTDALE KNIGHTDALE BLVD. −N. FIRST AVE. N. SMITHFIELD **ROBERTSON ST** 

**PHASE NUMBER** 

**OPEN SPACE?** 

3" PUBLIC WATER (LF)

6" PUBLIC WATER (LF)

8" PUBLIC WATER (LF) 12" PUBLIC WATER (LF)

8" PUBLIC SEWER (LF)

6' PUBLIC SIDEWALK (LF)

8' PUBLIC SIDEWALK (LF)

10' PUBLIC SIDEWALK (LF

PUBLIC STORM DRAINAGE

CURB AND GUTTER (LF)

WATER CONNECTIONS

SEWER CONNECTIONS

DIMENSIONAL STANDARDS

LOT WIDTH

(TOWNHOMES)

PUBLIC GREENWAY TRAIL (LF)

PROPOSED SINGLE FAMILY:

(PER PUD) FRONT PORCH/STOOP:

FRONT EAVES:

FRONT EAVES:

MIN. TO OPEN SPACE FRONT PORCH/STOOP:

MIN. CORNER SIDE

TO PORCH/STOOP:

TO PORCH/STOOP: TO PRIMARY STRUCTURE:

TO EAVES: MIN. REAR

PROPOSED MIN. TO RIGHT OF WAY (PER PUD) FRONT PORCH/STOOP:

> FRONT EAVES: MIN. TO OPEN SPACE

FRONT EAVES:

TO EAVES:

END UNITS:

MIN. CORNER SIDE

TO PORCH/STOOP:

INTERIOR UNIT:

TO EAVES:

TO PRIMARY STRUCTURE:

FRONT PORCH/STOOP:

TO PRIMARY STRUCTURE:

SEPARATION BETWEEN PORCHES/STOOPS: 6'

SEPARATION BETWEEN BUILDINGS:

TO GARAGE FROM CURB: 7' (PARALLEL)

TO GARAGE FROM CURB: 18<sup>1</sup> (90°)

FRONT PORCH/STOOP:

TO PRIMARY STRUCTURE:

PROPOSED 60' (SEE PUD DOCUMENT FOR EXCEPTIONS)

FRONT PRIMARY STRUCTURE: 10'

FRONT PRIMARY STRUCTURE: 3'

TO GARAGE FROM CURB: 7' (PARALLEL)

TO GARAGE FROM CURB: 18' (90°)

FRONT PRIMARY STRUCTURE: 10

(PER PUD) TOWNHOME

STREET SIGNS

PUBLIC STREET (LF)\*

NUMBER OF TOTAL RESIDENTIAL LOTS

NUMBER OF OPEN SPACE LOTS

147

YES

22 LF

1920 LF

4379 LF

909 LF

5274 LF

6733 LF

4567 LI

1825 LF

1043 LF 13500 LF

6973 LF

59

151

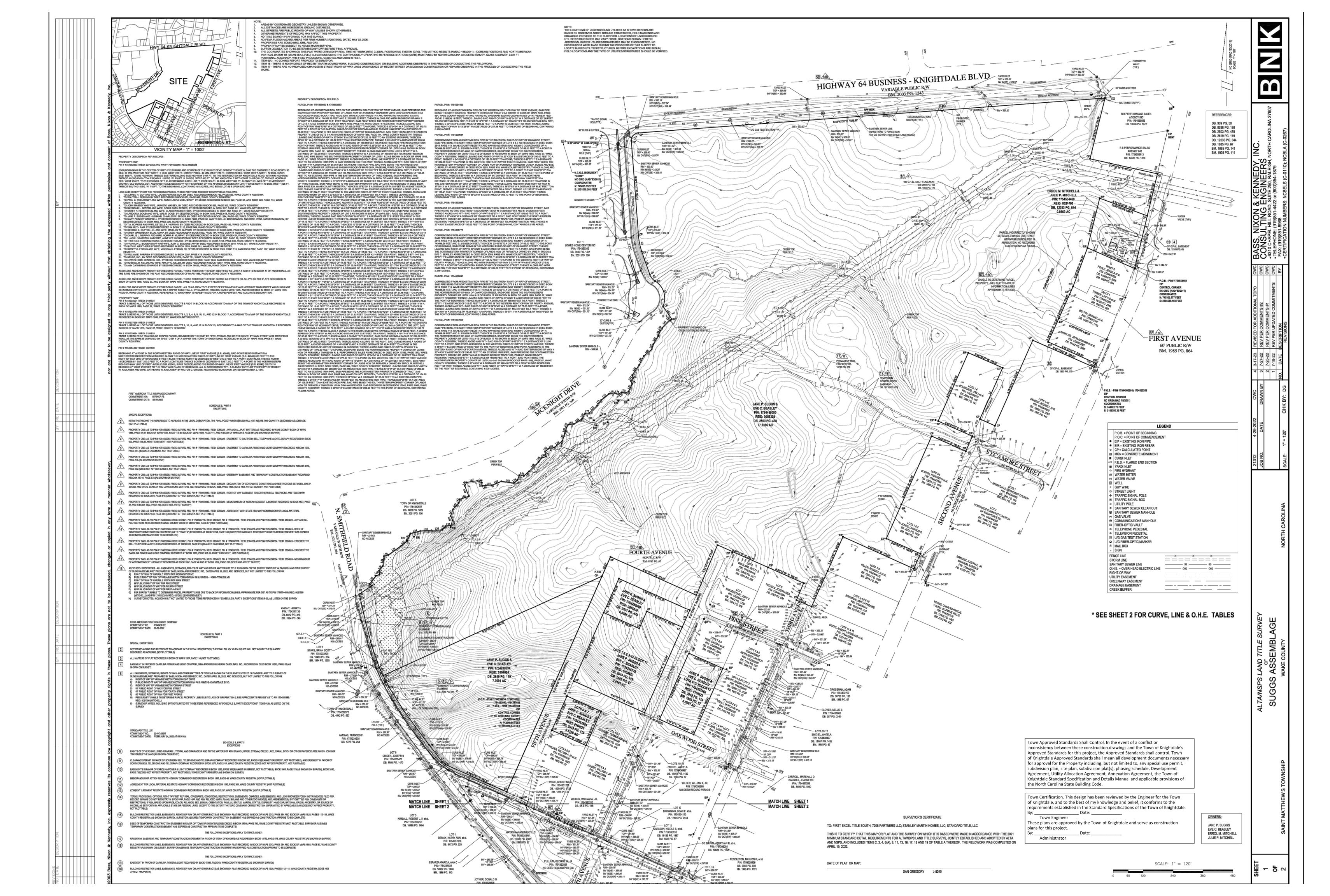
148

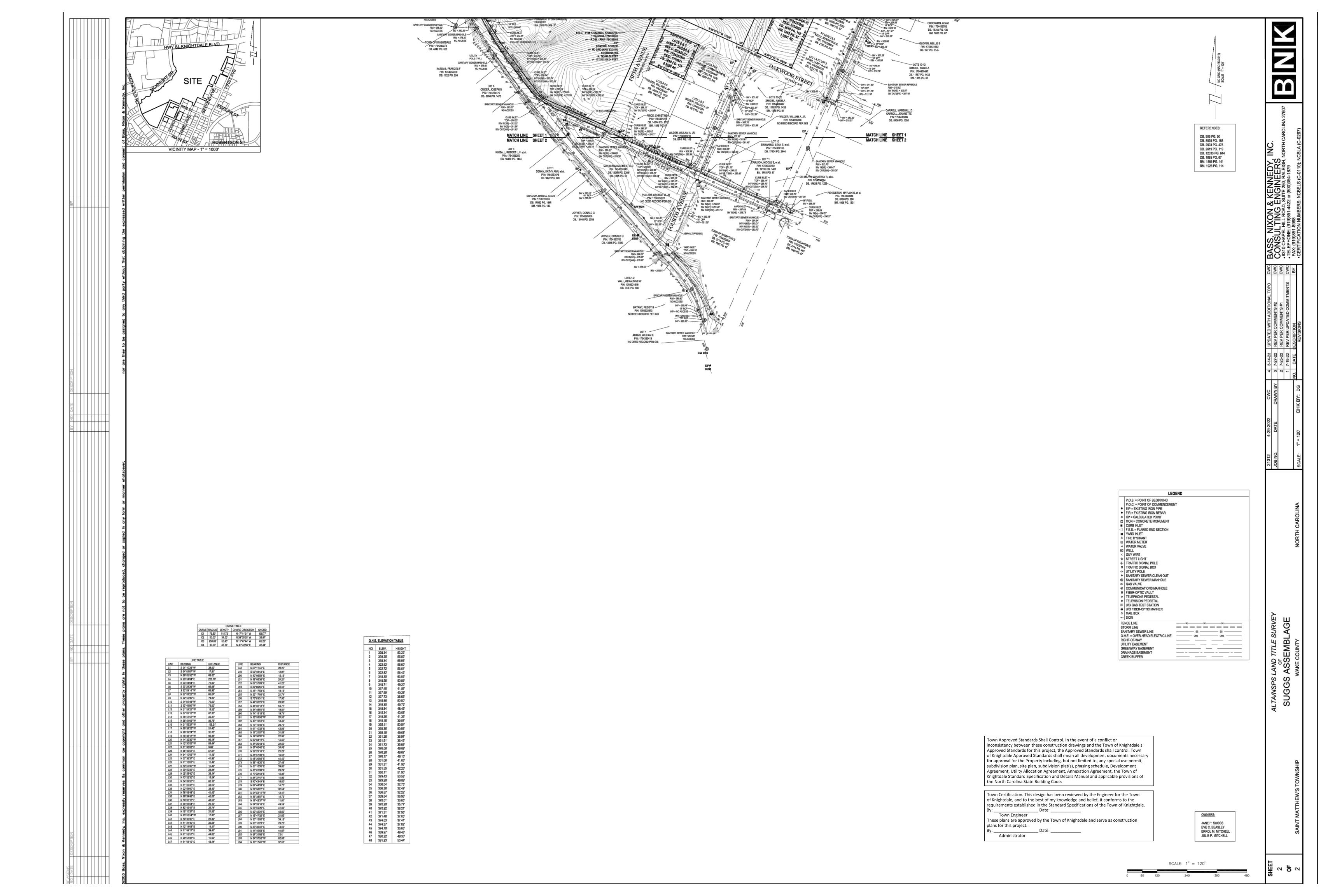
0 LF

**VICINITY MAP** 

OTTED IN COLOR TO BE VALID.

(PHASE 1)





# **EROSION CONTROL NOTES**

- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST TOWN OF KNIGHTDALE, AND NCDOT STANDARDS,
- GRADING AND EROSION CONTROL METHODS SHALL ADHERE TO THE KNIGHTDALE SOIL AND EROSION CONTROL STANDARDS AND SPECIFICATIONS
- GRADING AND EROSION CONTROL METHODS SHALL ADHERE TO THE NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES DIVISION OF WATER QUALITY (DWQ) STANDARDS AND SPECIFICATIONS. WHERE DIFFERENT FROM KNIGHTDALE STANDARDS. THE MORE STRINGENT METHOD SHALL BE APPLIED
- 4. FAILURE TO FOLLOW THE APPROVED PLAN SEQUENCE AND DETAILS COULD SUBJECT THE CONTRACTOR TO FINES AND PENALTIES ISSUED BY EITHER TOWN OF KNIGHTDALE EROSION CONTROL DEPARTMENT OR THE DWQ.
- FOR ANY LAND-DISTURBING ACTIVITY WHERE GRADING ACTIVITIES HAVE BEEN COMPLETED, TEMPORARY OR PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION SHALL BE PROVIDED AS SOON AS PRACTICAL, BUT IN NO CASE LATER THAN SEVEN (7) DAYS AFTER COMPLETING THE WORK. STABILIZATION IS THE BEST FORM OF EROSION CONTROL, TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE ON THE PLAN.
- NO DEBRIS SHALL BE TRACKED ONTO PUBLIC RIGHT OF WAY. IF THE SITUATION OCCURS WHERE MUD. ROCK AND DEBRIS IS TRACKED ONTO PAVEMENT, THE CONTRACTOR SHALL CLEAN THE PAVEMENT AND INSTALL ADDITIONAL MEASURES TO PREVENT THE FUTURE OCCURRENCE.
- THE EROSION CONTROL INSPECTOR MAY REQUIRE ADDITIONAL FIELD MEASURES AS NECESSARY TO PROVIDE ADEQUATE PROTECTION FROM RECEIVING WATER COURSES.
- EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY GRADING ON SITE. HE CONTRACTOR SHALL CALL FOR AN INSPECTION BY TOWN OF KNIGHTDALE PUBLIC WORKS FOR ALL SEDIMENTATION AND EROSION CONTROL (SEC) PERMITTING/INSPECTIONS, (919) 217-2255 ONCE INITIAL MEASURES ARE IN PLACE. (SEE CONSTRUCTION SEQUENCES)
- 9. CONTRACTOR SHALL INSPECT AND REPAIR ALL SEDIMENT/EROSION CONTROL DEVICES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT. GRADING ACTIVITY SHALL BE PROHIBITED IN THE AREAS OF THE SEDIMENT CONTROL DEVICES/SEDIMENT TRAPS UNTIL THE AREAS UPSTREAM OF THESE DEVICES HAVE BEEN STABILIZED AND APPROVED. ALL SKIMMER BASINS SHALL BE DE-SILTED AFTER THE END OF EVERY MAJOR RAIN EVENT.
- 10. A COPY OF THE APPROVED EROSION CONTROL PLAN MUST BE ON FILE AT THE JOB SITE AT ALL TIMES.
- 11. CONSTRUCTION, MAINTENANCE, AND REMOVAL OF ALL EROSION CONTROL DEVICES ARE THE RESPONSIBILITY OF THE
- 12. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE TOWN/COUNTY EROSION
- 13. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE TOWN/COUNTY ENGINEERING DEPARTMENT AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 14. PROTECTION OF EXISTING VEGETATION: AT THE START OF GRADING INVOLVING THE STRIPPING OF TOPSOIL OR LOWERING OF EXISTING GRADE AROUND A TREE, A CLEAN, SHARP, VERTICAL CUT SHALL BE MADE AT THE EDGE OF THE TREE SAVE AREA AT THE SAME TIME AS OTHER EROSION CONTROL MEASURES ARE INSTALLED. THE TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THE CUT FARTHEST AWAY FROM THE TREE TRUNK AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE. NO STORAGE OF MATERIALS, FILL, OR EQUIPMENT AND NO TRESPASSING SHALL BE ALLOWED WITHIN THE BOUNDARY OF THE PROTECTED AREA AND SHALL E POSTED ON THE PROTECTION FENCE. A PROTECTION FENCE CONSTRUCTED OF MATERIAL RESISTANT TO DEGRADATION BY SUN, WIND, AND MOISTURE FOR THE DURATION OF THE CONSTRUCTION, SHALL BE INSTALLED AT THE SAME TIME AS THE EROSION CONTROL MEASURES AND SHALL BE IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE.
- 15. CONSTRUCTION SEQUENCES HAS BEEN PROVIDED. INSTALLATION OF ALL PROPOSED SEDIMENTATION & FROSION. CONTROL MEASURES IN THE SEQUENCE(S) PROVIDED AND MAINTENANCE OF THOSE DEVICES IS REQUIRED. THE CONTRACTOR MAY BE ALLOWED. WITH PRIOR APPROVAL FROM THE OWNER, TO COORDINATE CHANGES TO THE PLAN WITH THE ON-SITE SEDIMENTATION & EROSION CONTROL INSPECTOR AND THE ENGINEER.
- 16. PROVIDE INLET PROTECTION AROUND ALL SITE STORM INLETS. PROTECT OPEN PIPES UNDER CONSTRUCTION WITH THER PLYWOOD OR WITH MESH AND GRAVEL WEIRS. RUNOFF SHALL NOT BE ALLOWED IN ANY OPEN TRENCH.
- 17. CONTRACTOR WILL FIELD LOCATE SILT FENCE OUTLETS AT LOW POINTS IN SILT FENCE AS REQUIRED TO PROVIDE RELIEF FROM CONCENTRATED FLOWS
- 18. TEMPORARY DIVERSIONS SHALL BE MAINTAINED DAILY BY CONTRACTOR SO THAT THEY ARE FUNCTIONAL AT THE END OF EACH WORKDAY AND WHEN STOPPING WORK FOR RAIN.
- 19. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- 20. DISTURBANCE OUTSIDE OF THE SITE PROPERTY LIMITS OR PUBLIC RIGHT-OF-WAY SHALL ONLY BE AS ALLOWED BY SIGNED GRADING AGREEMENTS AND/OR EASEMENTS BETWEEN THE DEVELOPER AND THE OFFSITE PROPERTY OWNER.
- 21. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN SAFE OPEN ACCESS TO ALL PROPERTIES ALONG ADJACENT PROPERTIES DURING CONSTRUCTION PERIOD FOR IMPROVEMENTS
- 22. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS FINAL RULE 29CFR PART 1926 , SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH. EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRES THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER. PROVIDED BY THE CONTRACTOR RESPONSIBLE FOR EXCAVATION
- 23. EQUIPMENT AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED PROVIDED APPROVAL HAS BEEN OBTAINED ROM THE OWNER IN WRITING PRIOR TO ORDERING OR INSTALLATION. THE CONTRACTOR SHALL WAIVE ANY CLAIM FOR ADDITIONAL COST RELATED TO THE SUBSTITUTION OF ALTERNATIVE EQUIPMENT.
- 24. EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/RESTORED TO THEIR ORIGINAL
- 25. SOIL UNDER BUILDINGS AND PAVED AREAS SHALL BE COMPACTED TO STANDARD PROCTOR 98% MAXIMUM DRY DENSITY OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER
- 26. THE CONTRACTOR SHALL NOTE THAT THE DRAWINGS MAY NOT SHOW EVERY OFFSET, TRANSITION, FITTING, ETC THAT MAY BE REQUIRED. THE CONTRACTOR SHALL INSTALL SUCH STANDARD APPURTENANCES AS REQUIRED TO CLOSELY FOLLOW THE GRADES AND ALIGNMENTS DEPICTED ON THE PLANS.
- 27. CONTRACTOR SHALL NOTIFY NC 811 AT 811 OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING ONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LÓCATED. CONTRACTOR TO CONTACT ANY LOCAL JTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF NC 811. REPORT ANY DISCREPANCIES TO
- 28. CONTRACTOR IS RESPONSIBLE FOR COORDINATING CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE UTILITY COMPANIES FOR ANY REQUIRED RELOCATION (I.E., POWER POLES, TELEPHONE PEDESTALS, WATER METERS, ETC.).
- 29. EXISTING UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- 30. PRIOR TO STARTING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION CONFERENCE WITH THE GRADING CONTRACTOR, ENGINEER, CONSTRUCTION INSPECTOR & OWNER.
- 31. LIMITATION TO THE EXPOSED AREA IS REQUIRED ON THIS PROJECT. NO MORE THAN APPROXIMATELY 80 ACRES HOULD BE BARE AT ANY TIME. THIS ROLLING ACREAGE CAN BE MANAGED WITH GROUNDCOVER ESTABLISHMENT.
- 32. COMPLETED AREA SHOULD BE STABILIZED IN ACCORDANCE WITH THE STABILIZATION TIMETABLE IDENTIFIED ON THE

# PERMITTING AND ENVIRONMENTAL REGULATIONS NOTES

- A. ONCE THE EROSION AND SEDIMENT CONTROL (ESC) PLAN HAS BEEN REVIEWED AND ACCEPTED BY THE TOWN OF
- KNIGHTDALE (TOK), A FORMAL PLAN APPROVAL LETTER WILL BE ISSUED TO THE FRP AND APPLICANTS. NOTE: AN ESC APPROVAL LETTER DOES NOT INDICATE PERMIT ISSUANCE B. AN NCG01 CERTIFICATE OF COVERAGE MUST BE OBTAINED FROM THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ). THE PERMIT CAN BE OBTAINED BY FILLING OUT THE ELECTRONIC NOTICE OF INTENT (E-NOI) FORM AT DEQ.NC.GOV/NCG01. PLEASE NOTE, THE E-NOI FORM MAY ONLY BE COMPLETED ONCE ESC PLANS HAVE BEEN APPROVED (A).
- THE TOWN OF KNIGHTDALE STORMWATER DEPARTMENT REQUIRES AN ON-SITE PRECONSTRUCTION (PRECON) MEETING PRIOR TO ISSUING A DEVELOPMENT PERMIT. THIS MEETING IS AN OPPORTUNITY TO GO OVER SITE MANAGEMENT EXPECTATIONS AND DISCUSS ANY PROJECT CONCERNS.
- D. ONCE THE PRECON MEETING HAS BEEN HELD AND ALL FEES PAID, THE LAND DEVELOPMENT PERMIT (LDP) WILL BE ISSUED FOR THE PROJECT E. FOLLOWING SITE MOBILIZATION, ROUTINE "CONSTRUCTION SITE INSPECTIONS" BY TOK STAFF WILL OCCUR AS OUTLINED IN THE TOK EROSION AND SEDIMENT CONTROL ENFORCEMENT TREE. TO NOTE,
- "COMPLIANT/SATISFACTORY" INSPECTIONS WILL NEED TO OCCUR FOLLOWING I. INSTALLATION OF INITIAL ESC PERIMETER CONTROLS (SF, SF/TP, SFOS) ONLY CLEARING THE PERIMETER RIBBON (25' MAX) - "PERIMETER CONTROL INSPECTION" II.INSTALLATION OF ALL PHASE 1 ESC MEASURES INCLUDING ENGINEERED STRUCTURES - "CERTIFICATE OF COMPLANCE INSPECTION"
- III. IT IS THE RESPONSIBILITY OF THE SITE MANAGER TO FORMALLY REQUEST THESE TYPES OF INSPECTIONS BY CONTACTING TOK PUBLIC WORKS. CLEARING/GRUBBING OUTSIDE OF THE LIMITED AREAS REQUIRED TO COMPLETE THE ABOVE ITEMS WILL RESULT IN ENFORCEMENT ACTION BY THE TOK. F. FOLLOWING THE COMPLETION OF THE ITEMS ABOVE - THE SITE CAN BE CLEARED AND DEVELOPED IN ACCORDANCE WITH THE APPROVED PLAN.
- PERMITS BOX CONTENTS A COPY OF THE TOK LAND DEVELOPMENT PERMIT, THE NCG01 CERTIFICATE OF COVERAGE (COC) AND REGULAR NPDES INSPECTIONS, A COPY OF THE APPROVED/REVISED ESC PLAN, AND (WHEN OBTAINED) THE TOK CERTIFICATE OF COMPLIANCE - MUST BE KEPT ON SITE, PREFERABLY IN A PERMITS BOX, AND ACCESSIBLE DURING
- INSPECTION. LOCATE A RAIN GAUGE ON SITE FOR FACILITATION OF INSPECTIONS AND RECORD KEEPING. 401/404 PERMITS - APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL PLAN DOES NOT AUTHORIZE IMPACTS TO WETLANDS COASTAL MARSH, STREAMS, OR OTHER WATERS OF THE STATE OR UNITED STATES OR
- SUPERSEDE ANY OTHER PERMITTING REQUIREMENT OF ANY FEDERAL STATE OR LOCAL AGENCY. A. IF APPLICABLE, PROVIDE A COPY OF THE USACE 404 PERMIT AND DWR 401 CERTIFICATIONS. PROVIDE A COPY OF THE DWR BUFFER AUTHORIZATION. I. SUBMIT DOCUMENTATION WITH MAPS SHOWING LOCATION AND EXTENT OF IMPACTS TO STREAMS AND WETLANDS WITH ANY SPECIAL CONDITIONS PERTAINING TO EROSION AND SEDIMENT CONTROL AND RESTORATION OF AFFECTED AREAS.
  - II.IDENTIFY THE STREAMS, WETLANDS, AND BUFFERS ON THE PLAN SHEETS. INCLUDE ANY ADDITIONAL MEASURES, CONSTRUCTION SPECIFICATIONS, MAINTENANCE REQUIREMENTS AND CONSTRUCTION SEQUENCING AS REQUIRED BY THE 404/401/BUFFER DETERMINATION AND BUFFER AUTHORIZATION ON THE III.FOLLOW ALL CONDITIONS OUTLINED IN THE CERTICATIONS, SPECIFICALLY REPORTING ANY DISCHARGES
- 4. AREAS OF ENVIRONMENTAL CONCERN AND CULTURAL RESOURCES BEFORE ANY SITE WORK OCCURS ADEQUATELY IDENTIFY KEY ENVIRONMENTAL AND/OR CULTURAL RESOURCES BY USING APPROPRIATE IDENTIFIERS IN THE FIELD (TREE PROTECTION FENCING, FLAGGING, ETC.).

OUTSIDE OF THE PERMITTED SCOPE OF WORK.

5. FILL/BORROW - ANY OFF-SITE BORROW AND/OR FILL REQUIRED FOR THIS PROJECT MUST COME FROM A SITE WITH AN APPROVED EROSION CONTROL PLAN, A SITE REGULATED UNDER THE MINING ACT OF 1971, OR A LANDFILL REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT, TRASH/DEBRIS FROM DEMOLITION ACTIVITIES OR GENERATED BY ANY ACTIVITIES ON SITE MUST BE DISPOSED OF AT A FACILITY REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT OR PER DIVISION OF SOLID WASTE MANAGEMENT OR DIVISION OF WATER RESOURCES RULES AND

# MAINTENANCE PLAN

- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL MEASURES AS DESIGNED.
- 2. SEDIMENT BASINS SHALL BE INSPECTED REGULARLY DURING LAND DISTURBING ACTIVITIES AND AFTER EACH RUNOFF-PRODUCING RAINFALL. SEDIMENT SHALL BE REMOVED AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF FACH BASIN, PORTIONS OF THE BASIN'S GRAVEL FACING THAT ARE CONTAMINATED BY SEDIMENT SHALL BE REPLACED WITH FRESH GRAVEL DURING EACH SEDIMENT REMOVAL EPISODE.
- SEDIMENT FENCES SHALL BE INSPECTED AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. REPAIRS SHALL BE MADE MMEDIATELY. SEDIMENT DEPOSITS SHALL BE REMOVED AS NEEDED TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAINFALL EVENT. AND TO REDUCE PRESSURE ON THE FENCE, FENCING MATERIALS AND SEDIMENT DEPOSITS SHALL BE REMOVED, AND THE AREA BROUGHT TO GRADE FOLLOWING STABILIZATION OF UPGRADIENT DISTURBED
- 4. MAINTENANCE AND/OR CLEAN OUT, IS NECESSARY ANYTIME THE DEVICE IS AT 50% CAPACITY. ALL SEDIMENT STORAGE MEASURES WILL REMAIN ON SITE AND FUNCTIONAL UNTIL ALL GRADING AND FINAL LANDSCAPING OF THE PROJECT IS
- 5. DIVERSION DITCHES MUST REMAIN IN PLACE UNTIL PROJECT IS STABILIZED.
- . MUD AND DEBRIS MUST BE KEPT OFF OF EXISTING PORTIONS OF ANY EXISTING PAVED ROAD AND/OR PRIVATE DRIVEWAY AT ALL TIMES. IF MUD AND DEBRIS IS TRACKED FROM THE SITE, IT MUST BE REMOVED IMMEDIATELY FAILURE TO FOLLOW THIS PROCEDURE MAY RESULT IN PUNITIVE ACTION BEING TAKEN, INCLUDING A STOP WORK ORDER AND/OR REVOKING THE GRADING PERMIT
- GRADED SLOPES AND FILLS ARE TO BE PLANTED OR PROVIDED WITH PROTECTIVE COVER SUFFICIENT TO RESTRAIN EROSION AFTER THE COMPLETION OF ANY PHASE OF GRADING. ALL AREAS UPON WHICH NO FURTHER LAND DISTURBING ACTIVITY WILL BE UNDERTAKEN ARE TO BE PLANTED OR PROVIDED WITH PROTECTIVE COVER WITHIN 14
- 8. SEEDING OR COVERING STOCKPILES WITH TARPS OR MULCH IS REQUIRED AND WILL REDUCE EROSION PROBLEMS. ARPS SHOULD BE KEYED IN AT THE TOP OF THE SLOPE TO KEEP WATER FROM RUNNING UNDERNEATH THE PLASTIC
- 9. IF A STOCKPILE IS TO REMAIN FOR FUTURE USE AFTER THE PROJECT IS COMPLETE(BUILDERS, ETC.), THE FINANCIAL RESPONSIBLE PARTY MUST NOTIFY TOWN OF KNIGHTDALE OF A NEW RESPONSIBLE PARTY FOR THAT STOCKPILE
- 10. THE APPROVED PLAN SHALL PROVIDE FOR THE USE OF STAGED SEEDING AND MULCHING ON A CONTINUAL BASIS WHILE THE STOCKPILE IS IN USE
- 11. ESTABLISH AND MAINTAIN A VEGETATIVE BUFFER AT THE TOE OF THE SLOPE (WHERE PRACTICAL).

# STAGE 1 SPECIFIC CONSTRUCTION SEQUENCE

- 1. SCHEDULE AN INITIAL PRE-CONSTRUCTION CONFERENCE WITH THE TOWN OF KNIGHTDALE. OBTAIN LAND-DISTURBANCE PERMIT
- 2. INSTALL ALL PERIMETER CONTROLS AS SHOWN ON THE APPROVED PLANS, CLEARING ONLY AS NEEDED TO INSTALL PERIMETER CONTROL (MAXIMUM 25FT FOR SE/TPF)
- 3. SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING WITH THE TOWN OF KNIGHTDALE TO INSPECT THE INSTALLED PERIMETER CONTROLS.
- 4. UPON APPROVAL, PROCEED WITH THE INSTALLATION OF GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASIN OR OTHER MEASURES AS SHOWN ON THE APPROVED PLANS. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSION, BERMS, AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
- 5. CONTRACTOR TO INSTALL TEMPORARY RISER STRUCTURE AND OUTLET BARREL WITH RISER BASIN 1 (RB-1) AS SHOWN. THERE SHALL BE NO IMPACT TO THE RIPARIAN BUFFERS OR OVERHEAD UTILITY EASEMENTS. SEE PLANS FOR LIMITS OF DISTURBANCE AND SILT FENCING AREAS.
- 6. CALL TOWN OF KNIGHTDALE EROSION CONTROL INSPECTOR TO SCHEDULE AN ON-SITE INSPECTION AND OBTAIN A CERTIFICATE OF COMPLIANCE
- 7. CONTINUE TO MAINTAIN TEMPORARY RB-1 THROUGHOUT STAGES 1-3. SEE STAGE 2-3 SEQUENCE FOR THE CONTINUED MAINTENANCE OF RB-1 AS REMAINDER OF THE SITE IS BROUGHT UP TO FINAL GRADE.

# STAGE 2 SPECIFIC CONSTRUCTION SEQUENCE

- 1. CLEAR AND GRUB REMAINDER OF SITE AND BEGIN EARTHWORK ACTIVITY.
- 2. AS THE SITE IS BROUGHT UP TO GRADE, CONTRACTOR SHALL RAISE AND/OR RELOCATE DIVERSION DITCHES AS NECESSARY TO MAINTAIN A POSITIVE SEDIMENT LADEN FLOW TO RISER BASIN RB-1.
- 3. ALL EXISTING SURROUNDING PROPERTIES NEED TO BE PROVIDED WITH AND MAINTAINED ACCESS THROUGHOUT CONSTRUCTION OR UNTIL ALTERNATIVE MEASURES OF ACCESS ARE IN PLACE.
- 4. MAINTAIN EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RAIN EVENT THROUGHOUT CONSTRUCTION.
- 5. UPON AREAS BEING BROUGHT TO FINAL GRADE, DISTURBED AREA SHOULD BE SEEDED/STABILIZED PER CHART ON SHEET C6.01.
- 6. CALL TOWN OF KNIGHTDALE EROSION CONTROL INSPECTOR TO SCHEDULE AN ON-SITE INSPECTION AND OBTAIN A

# STOCKPILING NOTES

- THE TEMPORARY STOCKPILING OF MATERIALS IS PERMITTED SUBJECT TO THE FOLLOWING STANDARDS:
- 1. THE STOCKPILED MATERIAL SHALL NOT EXCEED 25 FEET IN HEIGHT ABOVE THE ORIGINAL NATURAL GRADE.
- 2. THE FOOTPRINT OF THE STOCKPILING AREA SHALL BE LOCATED AT LEAST 25 FEET FROM ADJOINING PROPERTY LINES.
- THE SIDE SLOPE OF THE STOCKPILED MATERIALS SHALL NOT EXCEED A 3:1 RATIO.
- 4. STOCKPILED MATERIALS SHALL BE LIMITED TO DIRT, FILL, AND/OR GRAVEL.
- 5. STOCKPILED MATERIALS SHALL BE SEEDED OR COVERED WITH TARPS OR MULCH. TARPS SHALL BE KEYED IN AT THE TOP OF THE SLOPE TO KEEP WATER FROM RUNNING UNDERNEATH THE PLASTIC.
- 6. ANY CONCENTRATED FLOW LIKELY TO AFFECT THE STOCKPILE SHALL BE DIVERTED TO AN APPROVED BMP.
- 7. IF A STOCKPILE IS TO REMAIN FOR FUTURE USE AFTER THE PROJECT IS COMPLETE (BUILDERS, ETC.), THE FINANCIAL RESPONSIBLE PARTY MUST NOTIFY TOWN OF KNIGHTDALE OF A NEW RESPONSIBLE PARTY FOR THAT STOCKPILE
- 8. THE APPROVED PLAN SHALL PROVIDE FOR THE USE OF STAGED SEEDING AND MULCHING ON A CONTINUAL BASIS WHILE THE STOCKPILE IS IN USE
- 9. ESTABLISH AND MAINTAIN A VEGETATIVE BUFFER AT THE TOE OF THE SLOPE (WHERE PRACTICAL)

# TEMPORARY AND PERMANENT SEEDING NOTES

- 1. TEMPORARY SEEDING: MUST PLANT OR OTHERWISE PROVIDE A TEMPORARY COVER SUFFICIENT TO RESTRAIN EROSION AFTER ANY GRADED AREA REMAINS UNDISTURBED, AS ILLUSTRATED ON THE NPDES GROUND STABILIZATION TABLE THIS SHEET.
- 2. PERMANENT SEEDING: MUST PLANT OR OTHERWISE PROVIDE A PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION UPON COMPLETION OF CONSTRUCTION OR DEVELOPMENT IN A TIMEFRAME COMPLIANT WITH THE NPDES GROUND STABILIZATION GUIDELINES.

# SEEDBED PREPARATION

- 1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- 2. RIP THE ENTIRE AREA TO SIX INCHES DEEP.
- 3. REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- 4. APPLY AGRICULTURAL LIME, FERTILIZER AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL. 5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
- 6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
- 7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- 8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN 60% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- 9. CONSULT ENVIRONMENTAL CONSULTANTS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS

# REQUIRED TOWN OF KNIGHTDALE SCM BASIN CONVERSION SEQUENCE

- SCHEDULE A SITE MEETING WITH THE TOWN OF KNIGHTDALE EROSION CONTROL INSPECTOR TO DETERMINE IF A BASIN CAN BE REMOVED. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
- CONTACT NCDEQ RALEIGH REGIONAL OFFICE (919) 791-4200 TO DETERMINE THE DIVISION OF ENERGY, MINERAL AND LAND RESOURCES CONTACT PERSON TO RECEIVE DEWATERING NOTIFICATIONS, AT LEAST 10 DAYS PRIOR TO BEGINNING DEWATERING ACTIVITY, SEND EMAIL TO NCDEQ-DEMLR CONTACT PERSON AND COPY ENVIRONMENTAL CONSULTANT THAT MET YOU ONSITE. THE EMAIL SHOULD INCLUDE E&SC JURISDICTION: WAKE COUNTY, WAKE COUNTY AND ADDRESS THE FOLLOWING: A) REASON FO FROM PART II, SECTION G, ITEM 4 OF THE NCGO
- 3. AFTER RECEIVING POSITIVE CONFIRMATION FRO SOONER. REMOVE BASIN(S) AND ASSOCIATED T THIS TIME. FINE GRADE AREA IN PREPARATION I
- 4. PERFORM SEEDBED PREPARATION, SEED, MULC GRASS (CENTIPEDE / HYBRID BERMUDA)
- 5. INSTALL VELOCITY DISSIPATORS AND/OR LEVEL S
- WHEN SITE IS FULLY STABILIZED. CALL EROSION CONTROL MEASURES AND ADVICE ON WHEN SI SCHEDULED WITH THE EROSION CONTROL INSP FOR STORMWATER USE.

TEMPORARY ANTI-FLOAT BLOCK

15

268.00

267.00

271.00

50

0.02

CMP

10.8

4.0

Riser Barrel Diameter (FT) Outlet Barrel Diameter (IN)

Riser Invert In (FT)

Barrel Length (FT)

Pipe Material

WIDTH (FT)

HICKNESS (IN)

Outlet Flow (CFS)

Barrel Slope (FT/FT)

Riser Invert Out (FT)

Riser Crest Elevation (FT)

| V DDO IFCT, NIANAE   | NUMBER AND LOCATION (CITY/TONAN) ENVIR   | ONINAENTAL CONCLUTANT NANAE            |  | 1  |  |
|--|--|--|--|--|--|
| TY PROJECT: NAME, NUMBER, AND LOCATION (CITY/TOWN), ENVIRONMENTAL CONSULTANT NAME, FOR CONVERSION, B) BASIN #, C) DEWATERING METHOD, AND D) ALL OTHER NECESSARY INFO GO1. (KEEP EMAIL FOR YOUR NPDES MONITORING DOCUMENTATION FROM NCDEQ-DEMLR THAT YOU MAY REMOVE THE BASIN OR ON > DAY 11, WHICHEVER IS D TEMPORARY DIVERSION DITCHES. IF PIPES NEED TO BE EXTENDED, PERFORM THIS OPERATION AT IN FOR SEEDING. |  | HIGH QUALITY<br>WATER (HQW)<br>ZONES   | 7 DAYS   | NONE   |  |
|  |  | SLOPES STEEPER<br>THAN 3:1             | 7 DAYS   | IF SLOPES ARE 10' OR LESS<br>LENGTH AND ARE NOT ST<br>THAN 2:1, 14 DAYS ARE<br>ALLOWED  7-DAYS FOR SLOPES GREATHAN 50 FEET IN LENGTH |  |
| LCH AND ANCHOR ANY RESULTING BARE AREAS IMMEDIATELY USING NON-CLUMPING TURF  |  |  |  |  | SLOPES 3:1 OR<br>FLATTER                 |
| ON CONTROL INSPE<br>SITE CAN BE ISSUE  | ECTOR FOR APPROVAL OF REMOVING REMAININ<br>ED A CERTIFICATE OF COMPLETION. NOTE: A MEI | ETING SHOULD ALSO BE                   | ALL OTHER AREAS<br>WITH SLOPES<br>FLATTER THAN 4:1 | 14 DAYS  | NONE (EXCEPT FOR PERIM<br>AND HQW ZONES) |
|  | DRMWATER TECHNICIAN TO DETERMINE WHEN A  |  | <u> </u>   |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| N TABLE  | TEMPORARY RISER SIZE/BARREL SIZE TABLE   | TEMPORARY ROCK CHECK DAM DESIGN TABLE  |  |  |  |
| 1 1000   | TERRI STATE MISER SIZE/ DAMNEE SIZE TABLE  | TEM START ROOK STILOR DAW DESIGN TABLE |  |  |  |

| TEMPORARY RISER BASIN                                  | DESIGN TABLE                       |
|--|------------------------------------|
| EDIMENT TRAP ID  | RB-1                               |
| rainage Area (AC.)                                     | 38.26                              |
| isturbed Area (AC.)                                    | 24.64                              |
| ow Q10 (CFS)   | 117.5                              |
| ottom Elevation (FT)                                   | 268                                |
| ediment Depth (FT)                                     | 3.0                                |
| reeboard (from Sediment<br>epth)                       | 3.0                                |
| epth to Crest of Weir (FT)                             | 3.0                                |
| epth to Crest of Emergency<br>pillway (FT)             | 4.0' (272.00 TOP<br>CREST OF WEIR) |
| ide Slopes   | 2.0H:1V                            |
| pillway Length (FT)                                    | 20                                 |
| eight of Berm (FT)<br>Top of dam to bottom of<br>asin) | 6.0' @ 274.00                      |
| op of Trap Length (FT)                                 | 334                                |
| op of Trap Width (FT)                                  | 174                                |
| torage Volume Required (FT³)                           | 51,264                             |
| torage Volume Prov'd. (FT³)                            | 148,245                            |
| ediment Surface Area Req'd<br>T <sup>2</sup> )         | 51,110                             |
| ediment Surface Area Prov'd<br>T <sup>2</sup> )        | 52,152                             |
| umber of Skimmers                                      | 1                                  |
| kimmer Size (IN)                                       | 4.00                               |
|  |                                    |

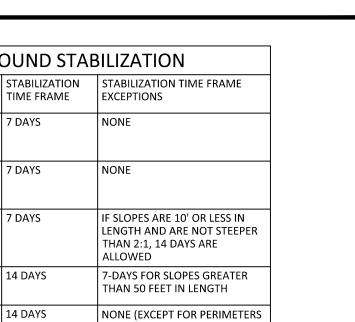
| TEMM STATES TO SECURE DE                                  | IIII DEGIGIT TABLE   |
|---|----------------------|
| SEDIMENT TRAP ID  | SB-2                 |
| Drainage Area (AC.)                                       | 0.52                 |
| Disturbed Area (AC.)                                      | 0.52                 |
| Flow Q10 (CFS)  | 1.7                  |
| Bottom Elevation (FT)                                     | 270                  |
| Sediment Depth (FT)                                       | 2.0                  |
| Freeboard (from Sediment<br>Depth)                        | 2.0                  |
| Depth to Crest of Weir (FT)                               | 2.0                  |
| Side Slopes   | 2.0H:1V              |
| Spillway Length (FT)                                      | N/A                  |
| Height of Berm (FT)<br>(Top of dam to bottom of<br>basin) | 4.0' <b>©</b> 274.00 |
| Top of Trap Length (FT)                                   | 46                   |
| Top of Trap Width (FT)                                    | 10                   |
| Storage Volume Required (FT³)                             | 936                  |
| Storage Volume Prov'd. (FT³)                              | 3,831                |
| Sediment Surface Area Req'd (FT²)                         | 550                  |
| Sediment Surface Area Prov'd (FT²)                        | 2,825                |

NOTE: RISER STRUCTURES WILL NEED TO BE IN PLACE PRIOR TO ISSUING COC, AND AUTHORIZATION FOR CLEARING/GRUBBING THE REST OF THE SITE.

TOTAL DRAINAGE AREA: 38.25 AC.

3.70

STAGE 1 AND STAGE 2 DISTURBED AREA: 24.84 AC.



**GROUND STABILIZATION** 

SITE AREA

DESCRIPTION

AND SLOPES

PERIMETER DIKES.

SWALES, DITCHES



The John R. McAdams Company, Ir

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Durham, NC 27713

license number: C-0293, C-187

phone 919. 361. 5000 fax 919. 361. 2269

www.mcadamsco.com

# CLIENT

ALLIANCE GROUP OF NC, LLC 7208 FALLS OF NEUSE RD, SUITE 101 RALEIGH, NORTH CAROLINA 27615 JACOB ANDERSON PHONE: 919. 239. 9486





# **REVISIONS**

NO. DATE

1 08. 18. 2023 REVISIONS PER TOK COMMENTS 2 09. 22. 2023 EC REVISIONS PER TOK COMMENTS

3 10. 11. 2023 REVISIONS PER TOK COMMENTS 4 10. 23. 2023 EC REVISIONS PER TOK COMMENTS

# PLAN INFORMATION

FILENAME AGN21002-EC-N1 CHECKED BY JCM / TEP MRC / LRS / RAD SCALE N.T.S. DATE 05. 05. 2023

PROJECT NO. AGN-21002

SHEET

These plans are approved by the Town of Knightdale and serve as construction

FINAL DRAWING - RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION SHALL BE IN ACCORDANCE

Town Engineer

Administrator

plans for this project.

PUBLIC UTILITIES. AND NCDOT (WHERE APPLICABLE)

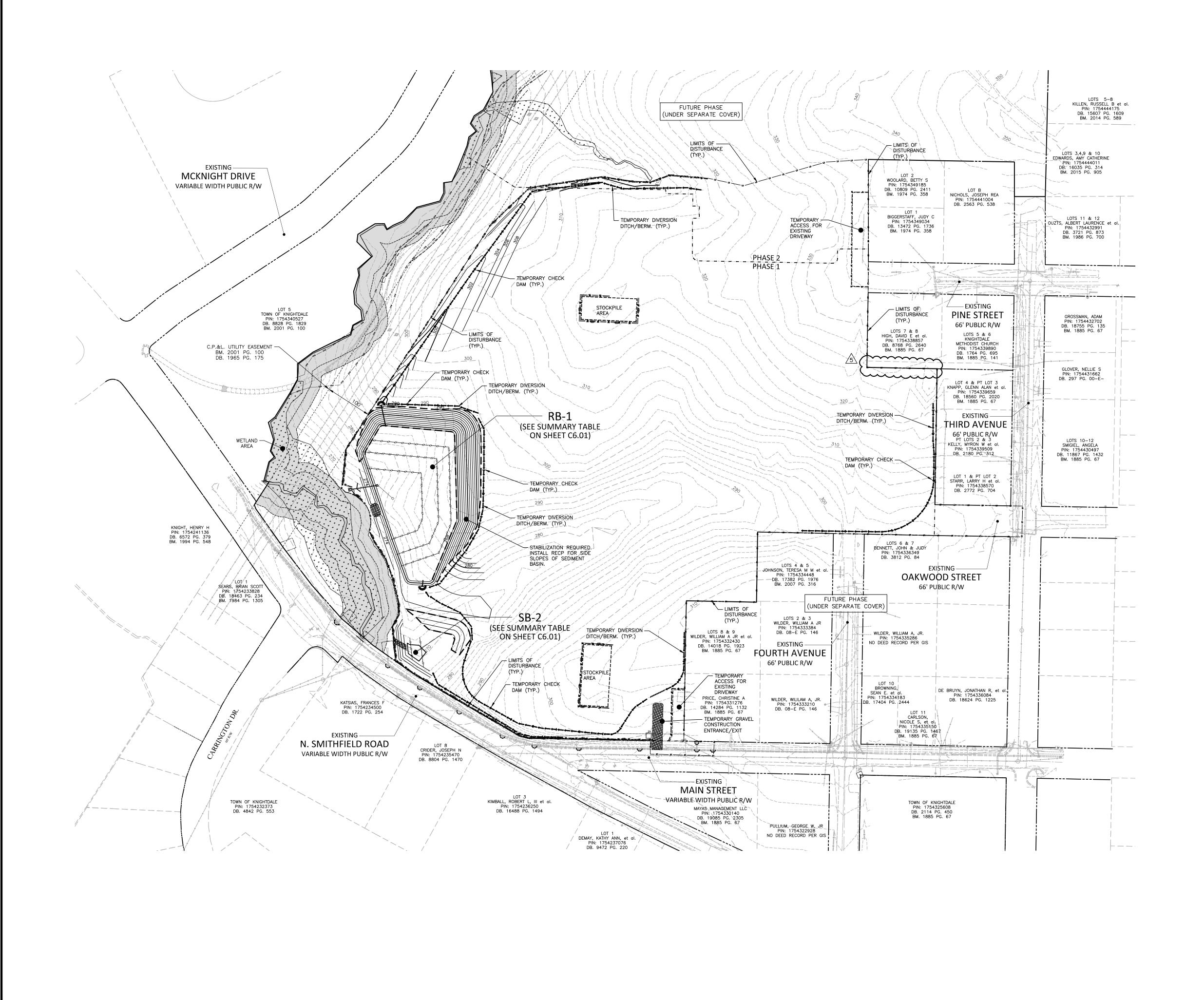
ENGINEERING DESIGN AND CONSTRUCTION STANDARDS

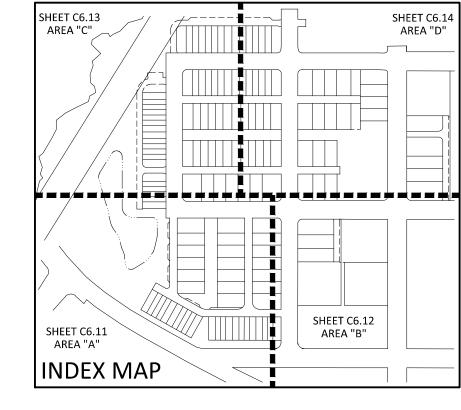
Town Certification. This design has been reviewed by the Engineer for the Town

requirements established in the Standard Specifications of the Town of Knightdale.

of Knightdale, and to the best of my knowledge and belief, it conforms to the

WITH THE CURRENT TOWN OF KNIGHTDALE, CITY OF RALEIGH





-IIIIIIII

INLET PROTECTION

INLET PROTECTION

FOR EXISTING STRUCTURES

TEMPORARY SLOPE DRAIN

SILT FENCE OUTLET

FILTER BERM

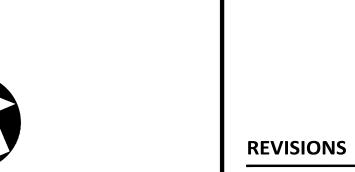
CHECK DAM

—SF/TP—SF/TP—SF/TP—

COMBINATION SILT FENCE/TREE PROTECTION FENCE LIMITS OF DISTURBANCE

CONSTRUCTION ENTRANCE/EXIT

SLOPE STABILIZATION REQUIRED



SEE SHEET CO.01 FOR ALL PROJECT, SITE, GRADING, STORM DRAINAGE AND UTILITY NOTES

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT TOWN OF KNIGHTDALE, CITY OF RALEIGH PUBLIC UTILITIES, AND NCDOT (WHERE APPLICABLE) ENGINEERING DESIGN AND CONSTRUCTION STANDARDS

Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale. By: \_\_\_\_\_ Town Engineer

Administrator

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

FINAL DRAWING - RELEASED FOR CONSTRUCTION



The John R. McAdams Company, Inc. 2905 Meridian Parkway Durham, NC 27713

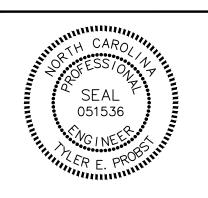
phone 919. 361. 5000 fax 919. 361. 2269 license number: C-0293, C-187

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4 10. 23. 2023 EC REVISIONS PER TOK COMMENTS

# **PLAN INFORMATION**

5 11. 03. 2023 REVISION TO APPROVED EC

PROJECT NO. AGN-21002 FILENAME CHECKED BY

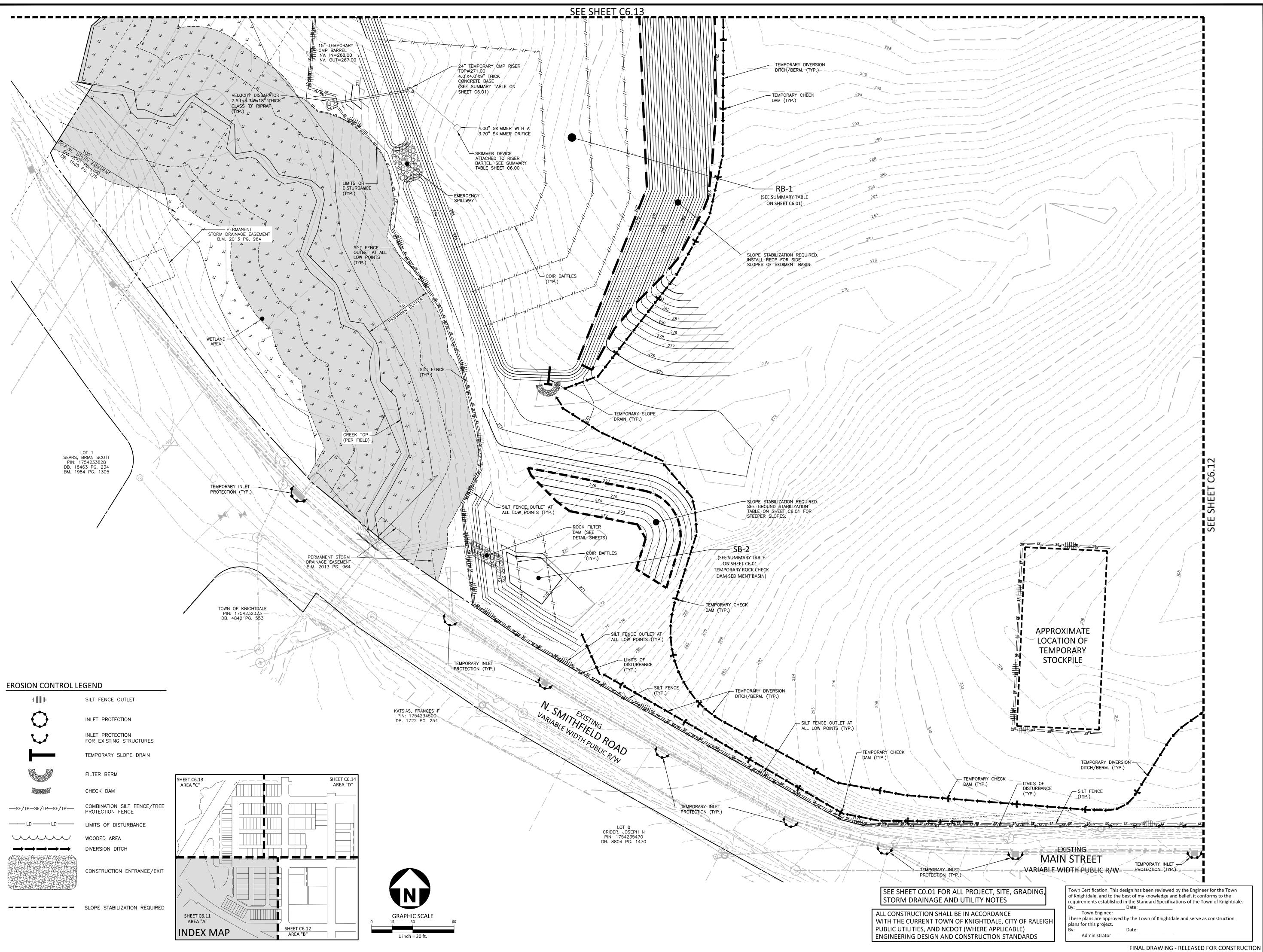
AGN21002-OAEC1 JCM / TEP MRC / LRS / RAD

DRAWN BY SCALE

1" = 100' DATE 05. 05. 2023

**SHEET** 

**OVERALL EROSION CONTROL PLAN - STAGE 1** 





# McAdams

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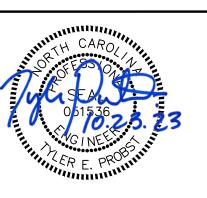
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# CLIENT

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# DOWNTOWN NORTH AT KNIGHTDALE STATION SNSTRUCTION DRAWINGS - PHAS N SMITHFIELD ROAD KNIGHTDALE, NORTH CAROLINA



# **REVISIONS**

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# PLAN INFORMATION

PROJECT NO. AGN-21002

FILENAME AGN21002-EC1

CHECKED BY JCM / TEP

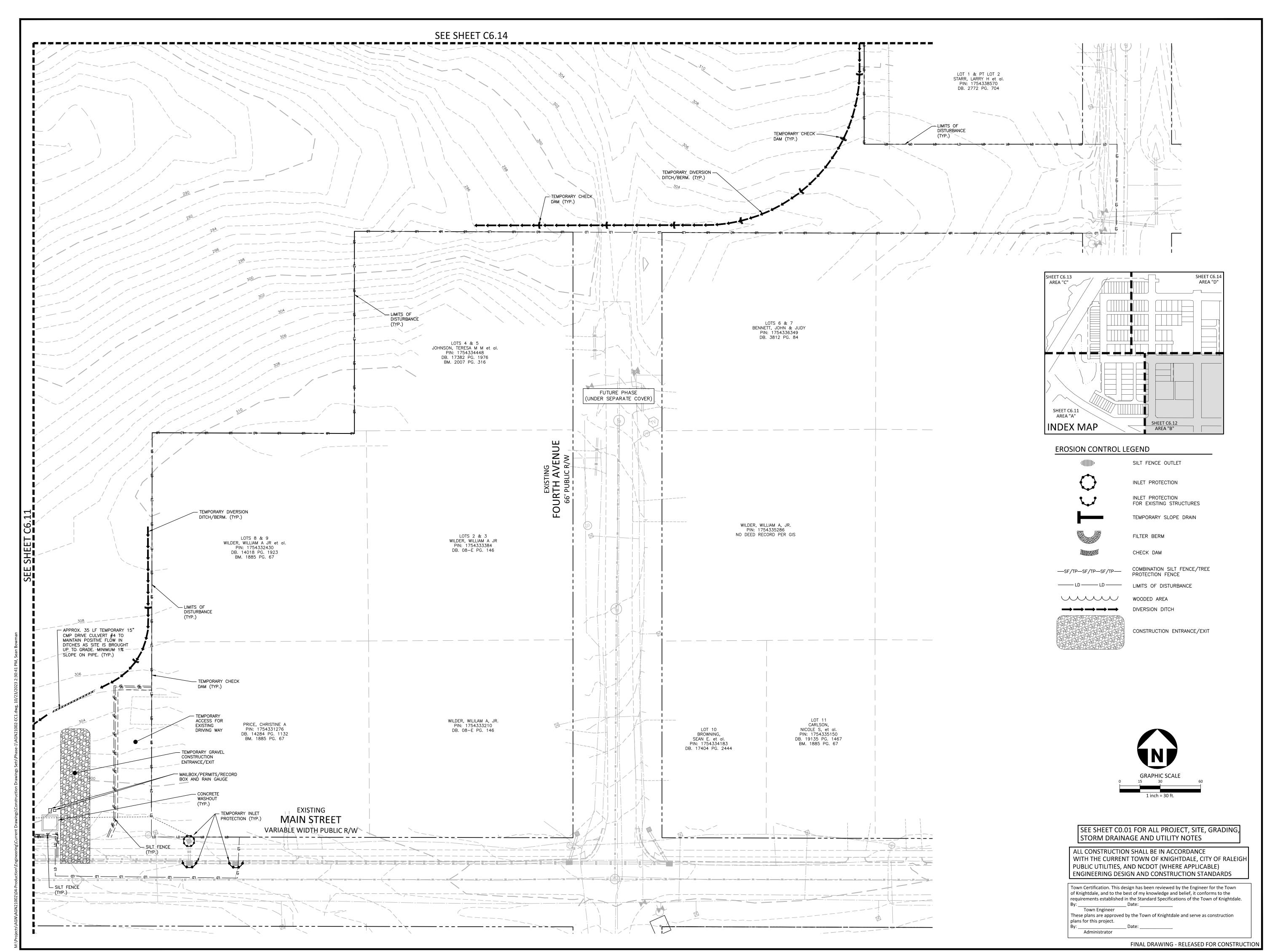
DRAWN BY MRC / LRS / RAD

SCALE 1" = 30'

SCALE 1" = 30'
DATE 05. 05. 2023

SHEET

EROSION CONTROL PLAN -AREA ''A'' - STAGE 1





The John R. McAdams Company, Inc 2905 Meridian Parkway Durham, NC 27713

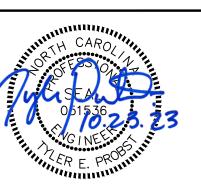
phone 919. 361. 5000 fax 919. 361. 2269 license number: C-0293, C-187

www.mcadamsco.com

# **CLIENT**

ALLIANCE GROUP OF NC, LLC 7208 FALLS OF NEUSE RD, SUITE 101 RALEIGH, NORTH CAROLINA 27615 JACOB ANDERSON PHONE: 919. 239. 9486





# **REVISIONS**

NO. DATE

1 08. 18. 2023 REVISIONS PER TOK COMMENTS

2 09. 22. 2023 EC REVISIONS PER TOK COMMENTS 3 10. 11. 2023 REVISIONS PER TOK COMMENTS

4 10. 23. 2023 EC REVISIONS PER TOK COMMENTS

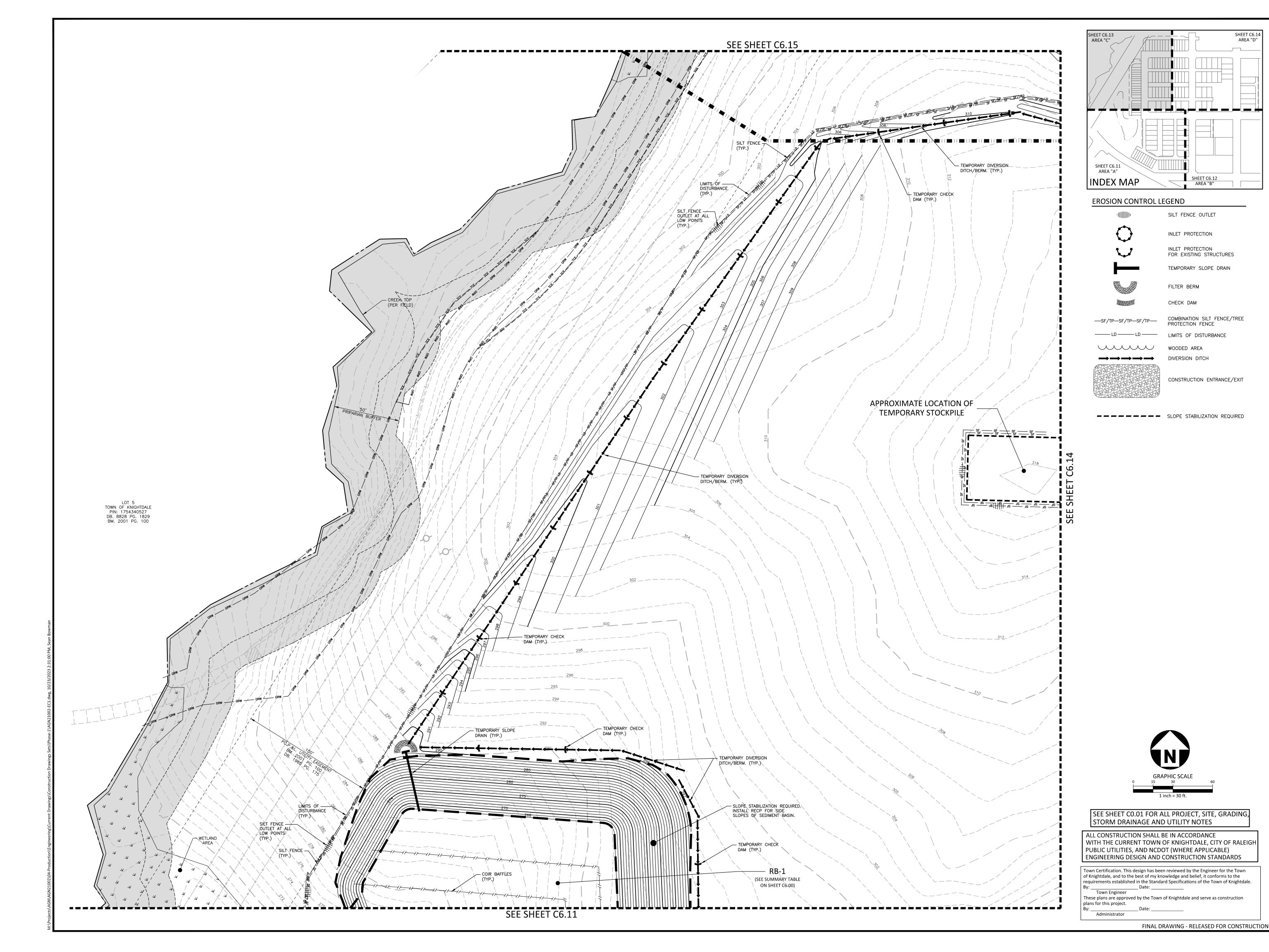
# PLAN INFORMATION

PROJECT NO. AGN-21002 FILENAME CHECKED BY SCALE

AGN21002-EC1 JCM / TEP MRC / LRS / RAD 1" = 30'

SHEET

**EROSION CONTROL PLAN -**AREA "B" - STAGE 1





The John R. McAdams Company, Inc. 2905 Meridian Parkway Durham, NC 27713

phone 919. 361. 5000 fax 919. 361. 2269 license number: C-0293, C-187

www.mcadamsco.com

# **CLIENT**

SHEET C6.14 AREA "D"

SHEET C6.12 AREA "B"

SILT FENCE OUTLET

INLET PROTECTION

FILTER BERM

CHECK DAM

WOODED AREA DIVERSION DITCH

INLET PROTECTION
FOR EXISTING STRUCTURES

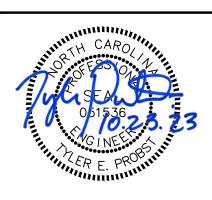
TEMPORARY SLOPE DRAIN

COMBINATION SILT FENCE/TREE PROTECTION FENCE

CONSTRUCTION ENTRANCE/EXIT

ALLIANCE GROUP OF NC, LLC 7208 FALLS OF NEUSE RD, SUITE 101 RALEIGH, NORTH CAROLINA 27615 JACOB ANDERSON PHONE: 919. 239. 9486





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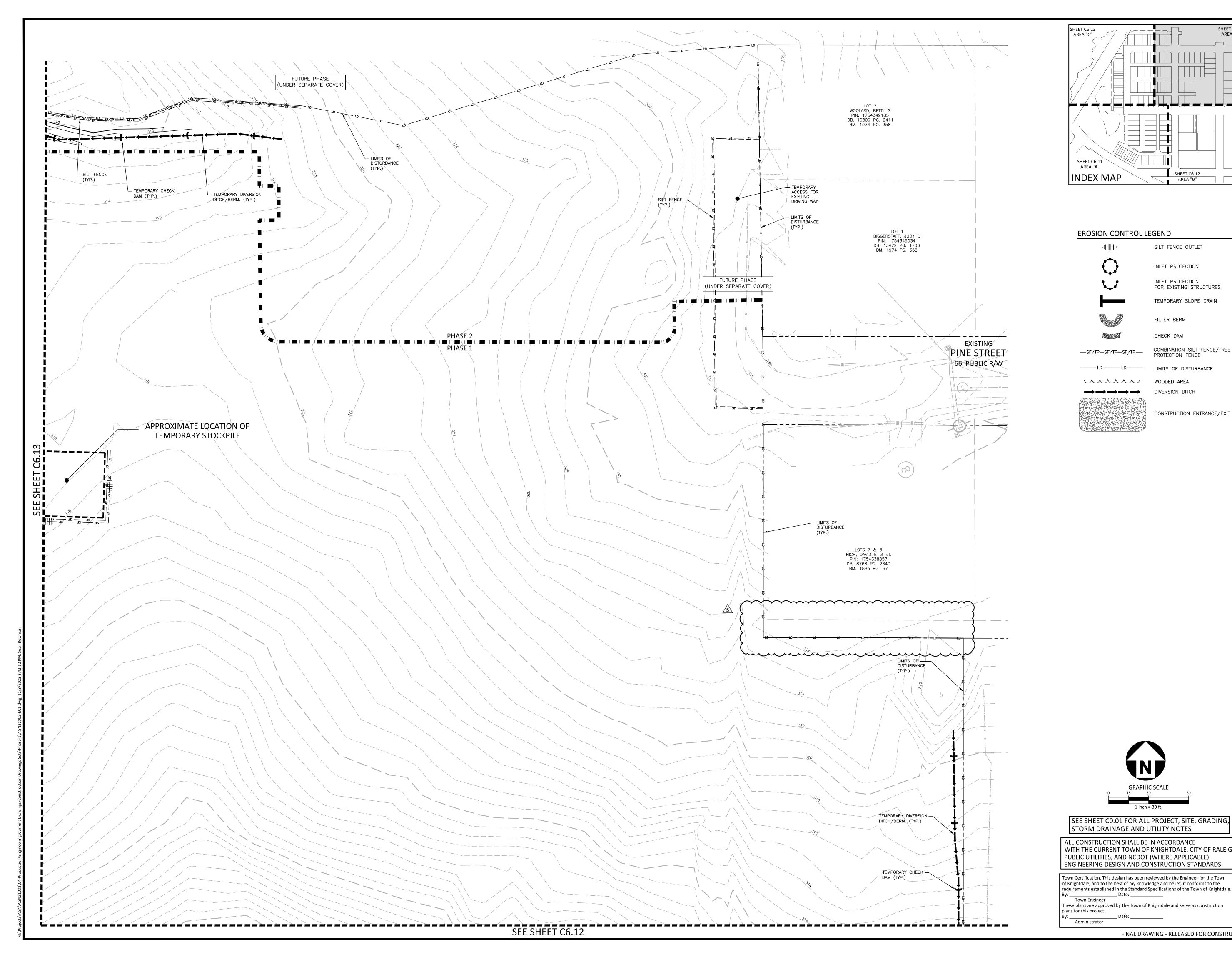
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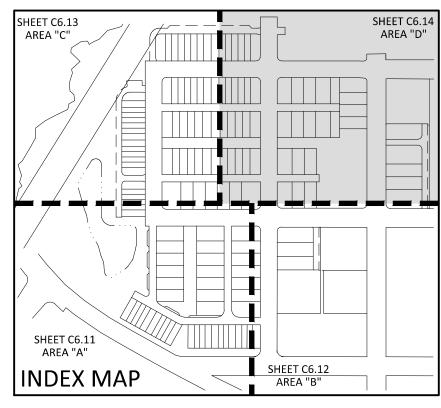
PROJECT NO. AGN-21002 AGN21002-EC1 FILENAME JCM / TEP CHECKED BY

MRC / LRS / RAD 1" = 30' SCALE 05. 05. 2023

SHEET

**EROSION CONTROL PLAN -**AREA "C" - STAGE 1





CHECK DAM

—SF/TP—SF/TP—

COMBINATION SILT FENCE/TREE PROTECTION FENCE —— LD —— LD —— LIMITS OF DISTURBANCE

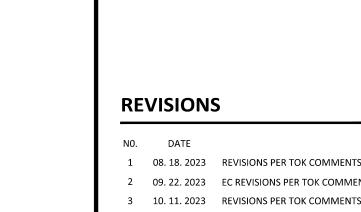
SEE SHEET CO.01 FOR ALL PROJECT, SITE, GRADING, STORM DRAINAGE AND UTILITY NOTES

ENGINEERING DESIGN AND CONSTRUCTION STANDARDS

FINAL DRAWING - RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION SHALL BE IN ACCORDANCE

CONSTRUCTION ENTRANCE/EXIT



# **PLAN INFORMATION**

PROJECT NO. AGN-21002 FILENAME CHECKED BY SCALE

AGN21002-EC1 MRC / LRS / RAD 1" = 30' 05. 05. 2023

4 10. 23. 2023 EC REVISIONS PER TOK COMMENTS 5 11. 03. 2023 REVISION TO APPROVED EC

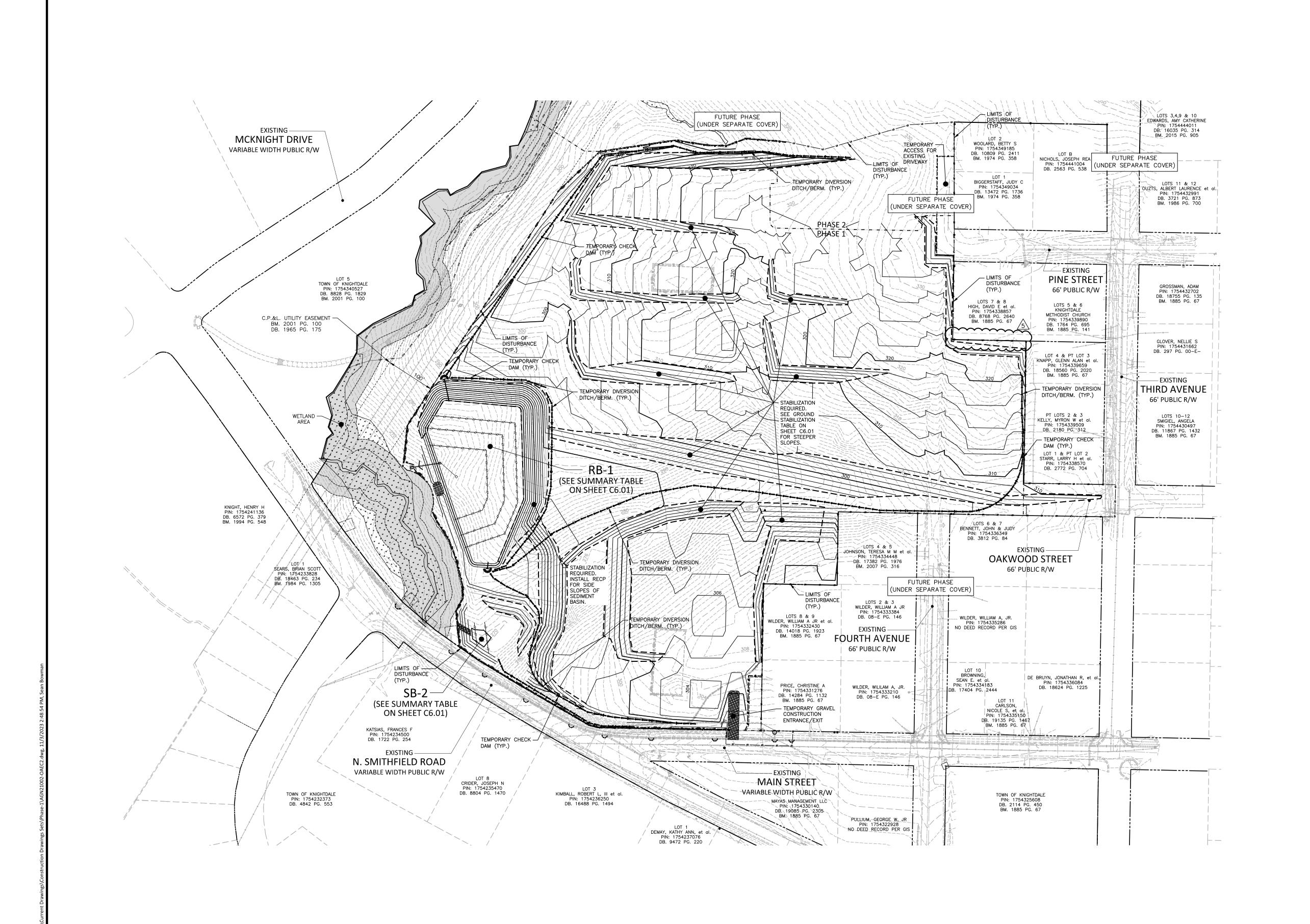
DATE SHEET

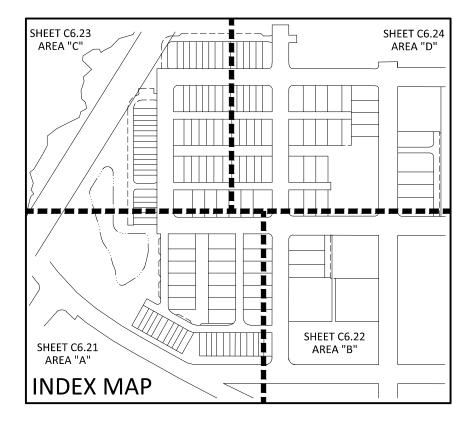
**EROSION CONTROL PLAN -**AREA "D" - STAGE 1



The John R. McAdams Company, Inc.

2905 Meridian Parkway Durham, NC 27713





SILT FENCE OUTLET

INLET PROTECTION FOR EXISTING STRUCTURES

TEMPORARY SLOPE DRAIN

FILTER BERM

WOODED AREA

INLET PROTECTION

CHECK DAM

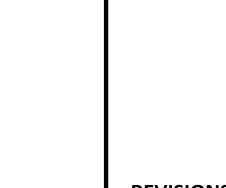
—SF/TP—SF/TP—

PROTECTION FENCE -----LD ------ LIMITS OF DISTURBANCE

COMBINATION SILT FENCE/TREE

DIVERSION DITCH CONSTRUCTION ENTRANCE/EXIT

SLOPE STABILIZATION WITH RECP



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Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: \_\_\_\_\_ Date: \_\_\_\_\_
Town Engineer These plans are approved by the Town of Knightdale and serve as construction plans for this project.

FINAL DRAWING - RELEASED FOR CONSTRUCTION



The John R. McAdams Company, Inc

2905 Meridian Parkway

Durham, NC 27713 phone 919. 361. 5000

license number: C-0293, C-187 www.mcadamsco.com

fax 919. 361. 2269

# **CLIENT**

ALLIANCE GROUP OF NC, LLC 7208 FALLS OF NEUSE RD, SUITE 101 RALEIGH, NORTH CAROLINA 27615 JACOB ANDERSON PHONE: 919. 239. 9486





# **REVISIONS**

NO. DATE

1 08. 18. 2023 REVISIONS PER TOK COMMENTS 2 09. 22. 2023 EC REVISIONS PER TOK COMMENTS

3 10. 11. 2023 REVISIONS PER TOK COMMENTS

4 10. 23. 2023 EC REVISIONS PER TOK COMMENTS 5 11. 03. 2023 REVISION TO APPROVED EC

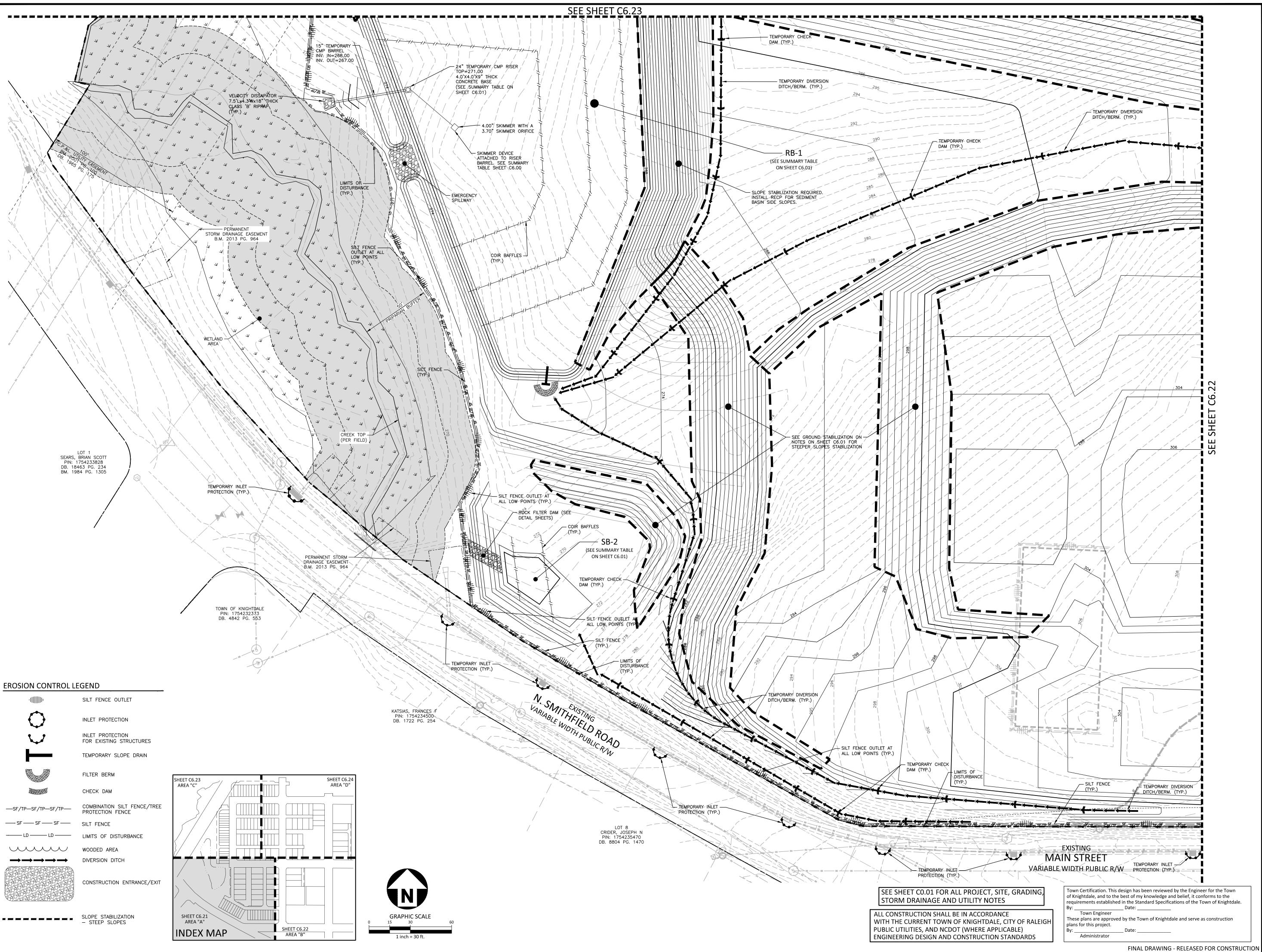
# **PLAN INFORMATION**

PROJECT NO. AGN-21002 FILENAME CHECKED BY

AGN21002-OAEC2 JCM / TEP MRC / LRS / RAD DRAWN BY 1" = 100'

SCALE DATE SHEET

**OVERALL EROSION CONTROL PLAN - STAGE 2** 





# MCADAMS

The John R. McAdams Company, Inc 2905 Meridian Parkway Durham, NC 27713

phone 919. 361. 5000 fax 919. 361. 2269 license number: C-0293, C-187

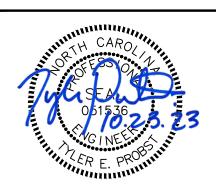
www.mcadamsco.com

# CLIENT

ALLIANCE GROUP OF NC, LLC 7208 FALLS OF NEUSE RD, SUITE 101 RALEIGH, NORTH CAROLINA 27615 JACOB ANDERSON PHONE: 919. 239. 9486



# KNIGHTDALE STATION NSTRUCTION DRAWINGS - PHAS N SMITHFIELD ROAD



# **REVISIONS**

NO. DATE

1 08. 18. 2023 REVISIONS PER TOK COMMENTS

09. 22. 2023 EC REVISIONS PER TOK COMMENTS
 10. 11. 2023 REVISIONS PER TOK COMMENTS
 10. 23. 2023 EC REVISIONS PER TOK COMMENTS

# PLAN INFORMATION

PROJECT NO. AGN-21002

FILENAME AGN21002-EC2

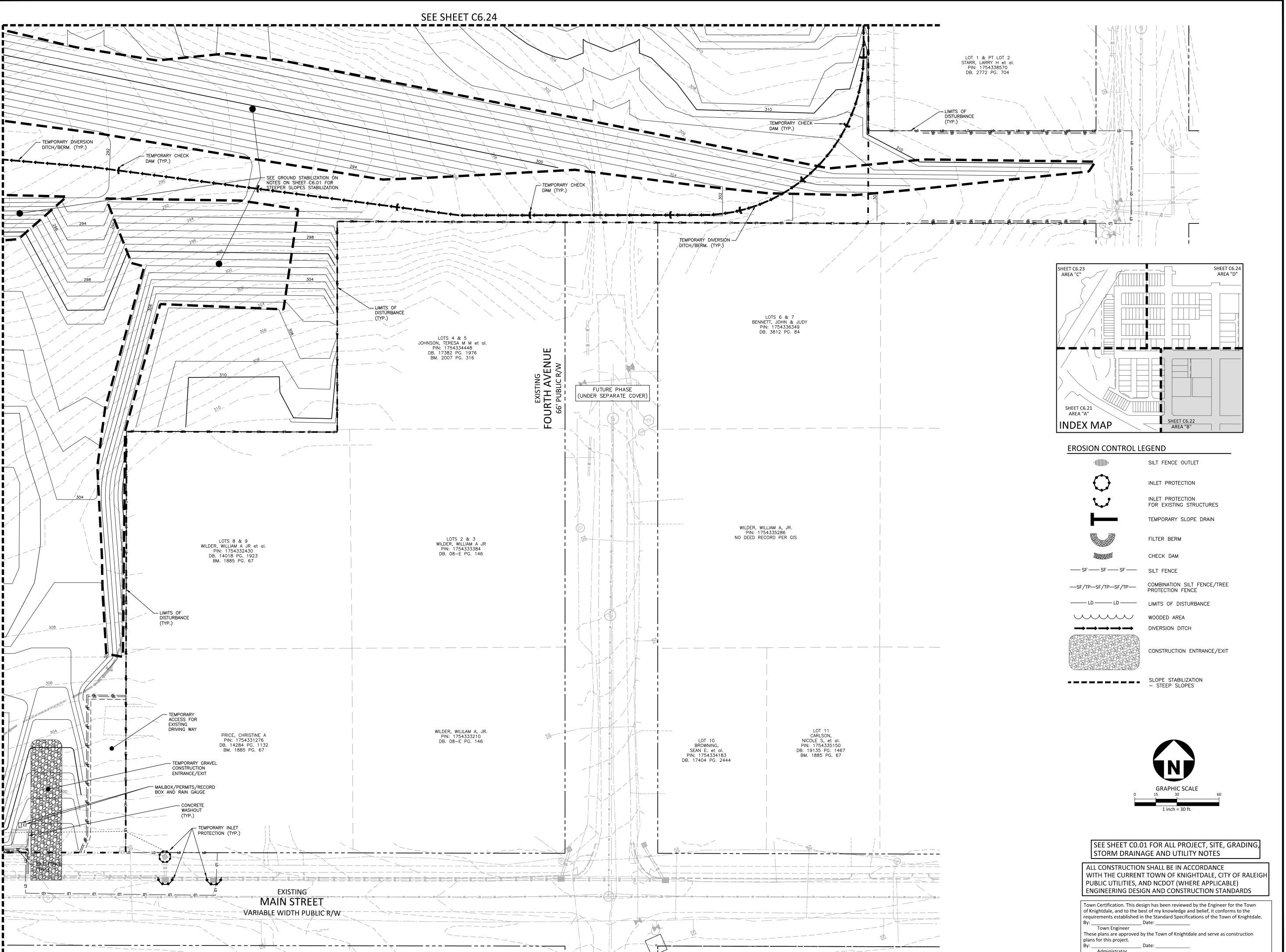
CHECKED BY JCM / TEP

DRAWN BY MRC / LRS / RAD

SCALE 1" = 30'
DATE 05. 05. 2023

SHEET

EROSION CONTROL PLAN -AREA ''A'' - STAGE 2





The John R. McAdams Company, Inc 2905 Meridian Parkway Durham, NC 27713

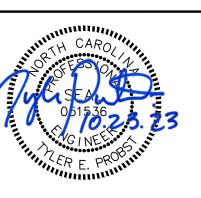
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# **CLIENT**

ALLIANCE GROUP OF NC, LLC 7208 FALLS OF NEUSE RD, SUITE 101 RALEIGH, NORTH CAROLINA 27615 JACOB ANDERSON PHONE: 919. 239. 9486





# **REVISIONS**

NO. DATE

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3 10. 11. 2023 REVISIONS PER TOK COMMENTS 4 10. 23. 2023 EC REVISIONS PER TOK COMMENTS

# PLAN INFORMATION

PROJECT NO. AGN-21002 FILENAME CHECKED BY SCALE

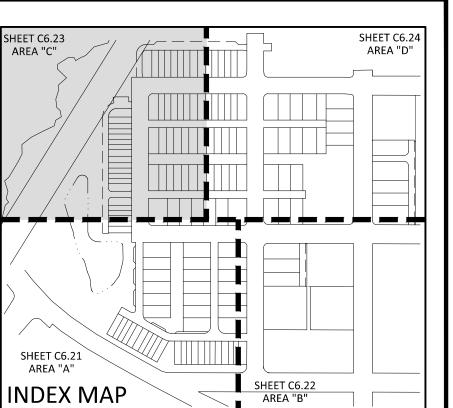
AGN21002-EC2 JCM / TEP MRC / LRS / RAD 1" = 30'

SHEET

FINAL DRAWING - RELEASED FOR CONSTRUCTION

**EROSION CONTROL PLAN -**AREA "B" - STAGE 2





INLET PROTECTION
INLET PROTECTION
FOR EXISTING STRUCTURES

SILT FENCE OUTLET

TEMPORARY SLOPE DRAIN
FILTER BERM

— SF — SF — SILT FENCE

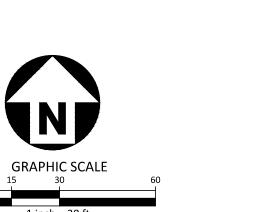
— LD — LD — LIMITS OF DISTURBANCE

wooded area

DIVERSION DITCH

CONSTRUCTION ENTRANCE/EXIT

SLOPE STABILIZATION
— STEEP SLOPES



SEE SHEET CO.01 FOR ALL PROJECT, SITE, GRADING, STORM DRAINAGE AND UTILITY NOTES

ALL CONSTRUCTION SHALL BE IN ACCORDANCE
WITH THE CURRENT TOWN OF KNIGHTDALE, CITY OF RALEIO
PUBLIC UTILITIES, AND NCDOT (WHERE APPLICABLE)
ENGINEERING DESIGN AND CONSTRUCTION STANDARDS

Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

Town Engineer
These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: \_\_\_\_\_\_ Date: \_\_\_\_\_

FINAL DRAWING - RELEASED FOR CONSTRUCTION



# McAdams

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phone 919. 361. 5000 fax 919. 361. 2269 license number: C-0293, C-187

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# \_

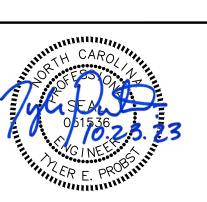
ALLIANCE GROUP OF NC, LLC
7208 FALLS OF NEUSE RD, SUITE 101
RALEIGH, NORTH CAROLINA 27615

JACOB ANDERSON PHONE: 919. 239. 9486



# BROKERAGE | CONSULTING | PLANNING

KNIGHTDALE STATION
SNSTRUCTION DRAWINGS - PHAS
N SMITHFIELD ROAD
KNIGHTDALE, NORTH CAROLINA



# REVISIONS

NO

NO. DATE

1 08. 18. 2023 REVISIONS PER TOK COMMENTS

 3
 10. 11. 2023
 REVISIONS PER TOK COMMENTS

 4
 10. 23. 2023
 EC REVISIONS PER TOK COMMENTS

# PLAN INFORMATION

PROJECT NO. AGN-21002

FILENAME AGN21002-EC2

CHECKED BY JCM / TEP

DRAWN BY MRC / LRS / RAD

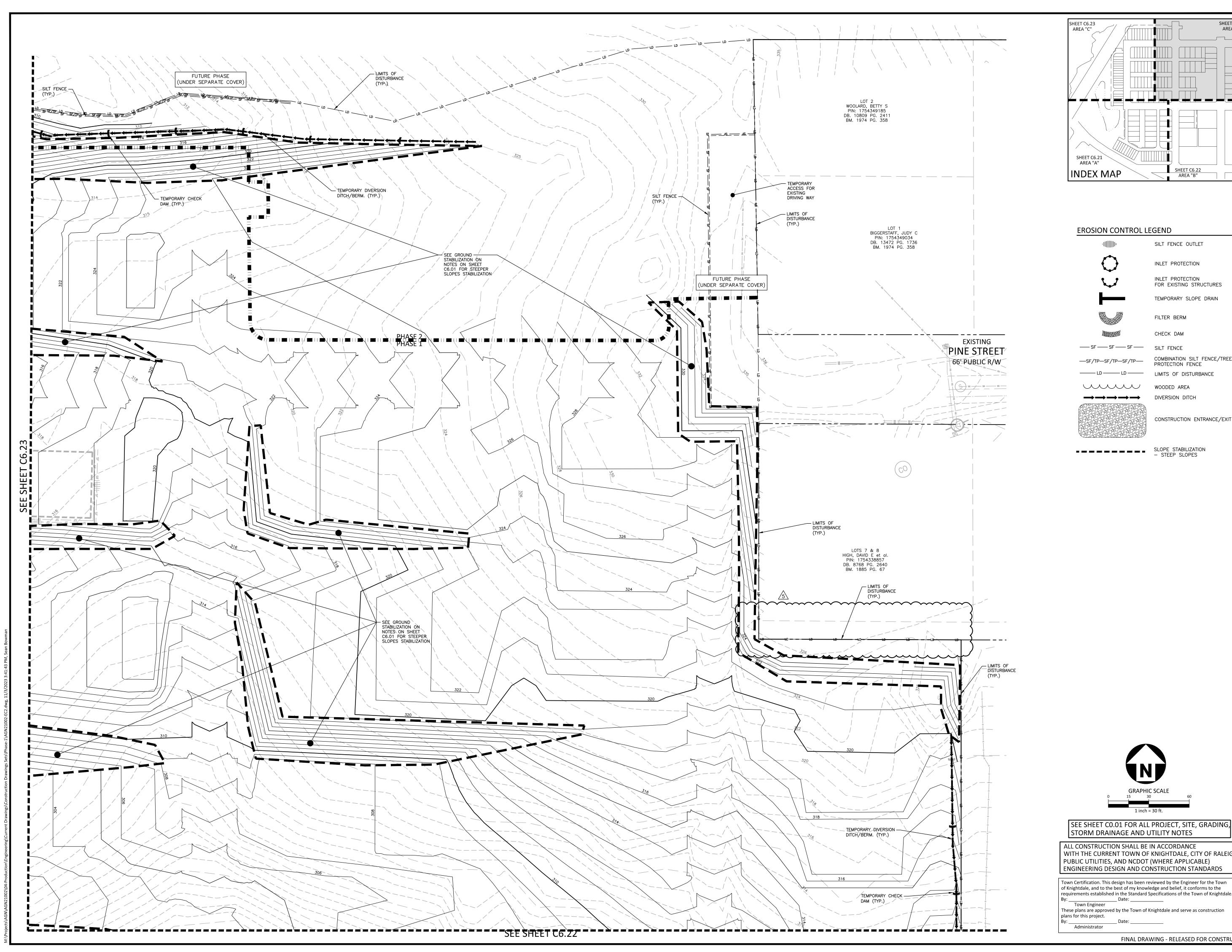
DRAWN BY MRC / LRS / RAD

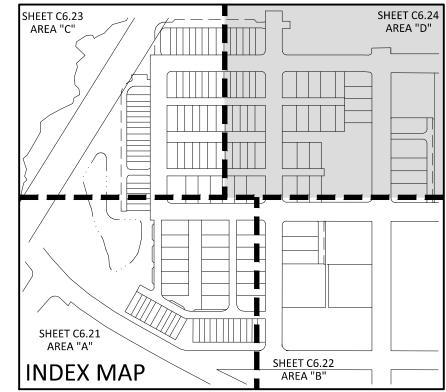
SCALE 1" = 30'

DATE 05. 05. 2023

SHEET

EROSION CONTROL PLAN -AREA "C" - STAGE 2





SILT FENCE OUTLET

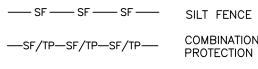
INLET PROTECTION

INLET PROTECTION FOR EXISTING STRUCTURES

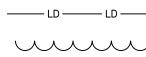
TEMPORARY SLOPE DRAIN



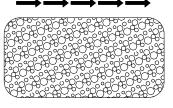
FILTER BERM CHECK DAM



COMBINATION SILT FENCE/TREE PROTECTION FENCE



LIMITS OF DISTURBANCE



DIVERSION DITCH

CONSTRUCTION ENTRANCE/EXIT

SLOPE STABILIZATION
- STEEP SLOPES

SEE SHEET CO.01 FOR ALL PROJECT, SITE, GRADING,

STORM DRAINAGE AND UTILITY NOTES

PUBLIC UTILITIES, AND NCDOT (WHERE APPLICABLE) ENGINEERING DESIGN AND CONSTRUCTION STANDARDS

These plans are approved by the Town of Knightdale and serve as construction

FINAL DRAWING - RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION SHALL BE IN ACCORDANCE



The John R. McAdams Company, Inc

2905 Meridian Parkway Durham, NC 27713

phone 919. 361. 5000

fax 919. 361. 2269 license number: C-0293, C-187

www.mcadamsco.com

**CLIENT** 

ALLIANCE GROUP OF NC, LLC

JACOB ANDERSON PHONE: 919. 239. 9486

7208 FALLS OF NEUSE RD, SUITE 101

RALEIGH, NORTH CAROLINA 27615

# **REVISIONS**

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1 08. 18. 2023 REVISIONS PER TOK COMMENTS 2 09. 22. 2023 EC REVISIONS PER TOK COMMENTS

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# PLAN INFORMATION

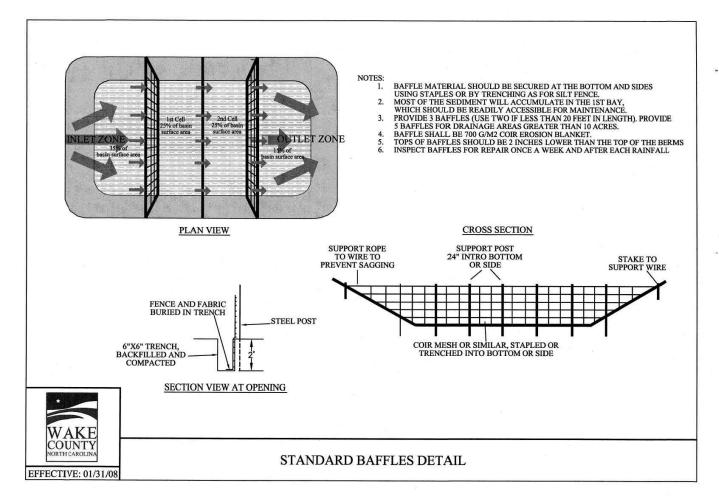
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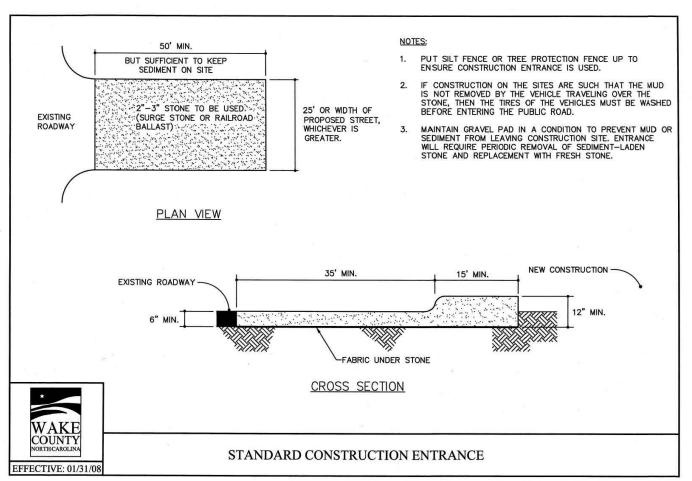
JCM / TEP MRC / LRS / RAD 1" = 30' 05. 05. 2023

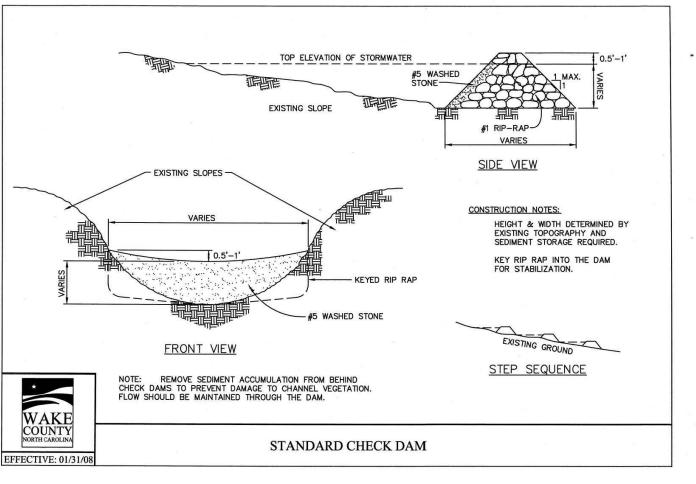
SHEET

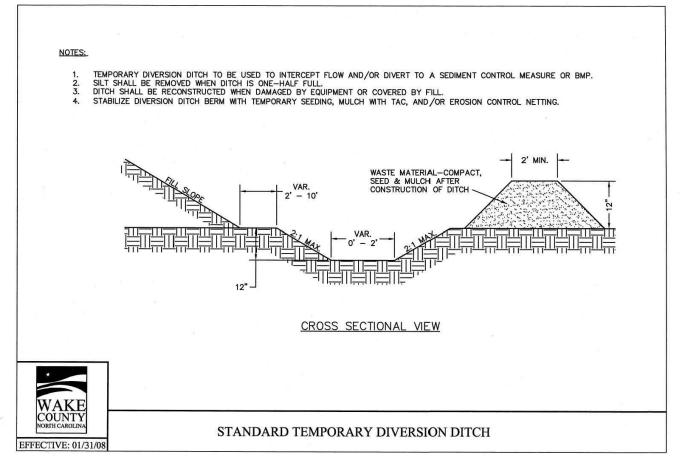
**EROSION CONTROL PLAN -**AREA "D" - STAGE 2

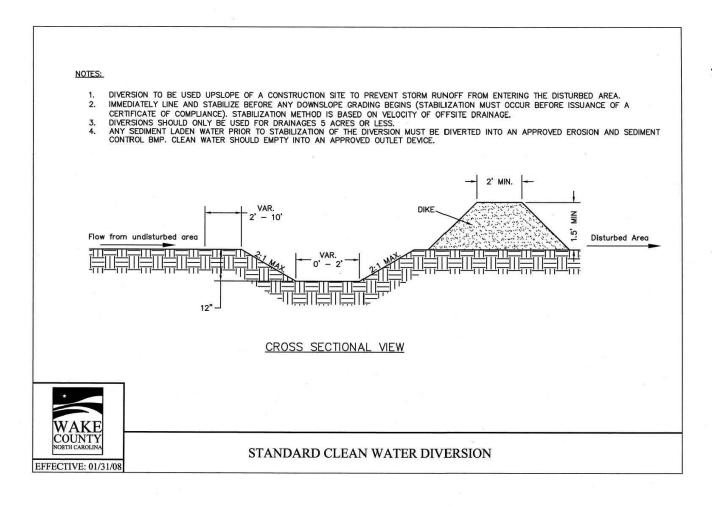
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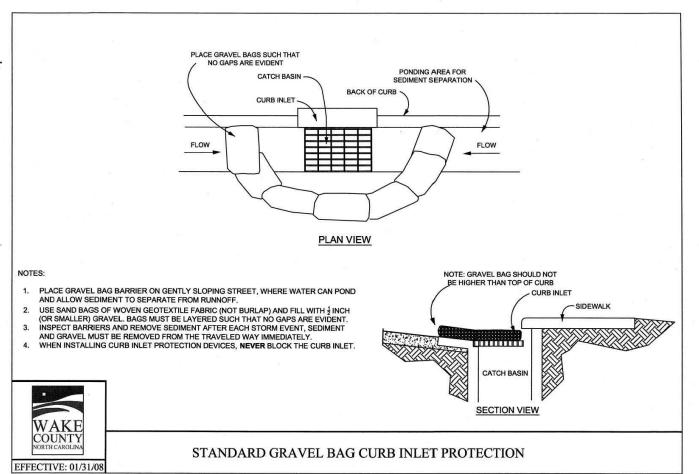


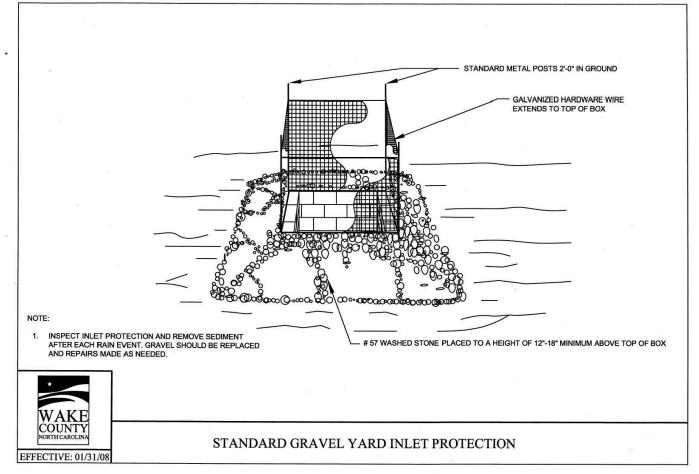


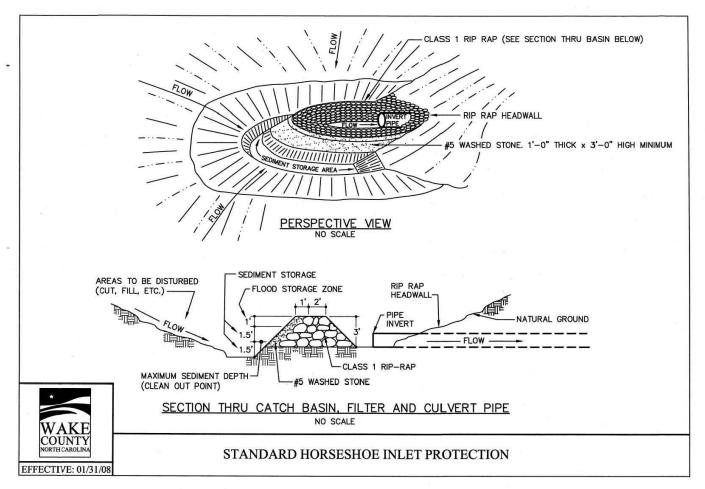


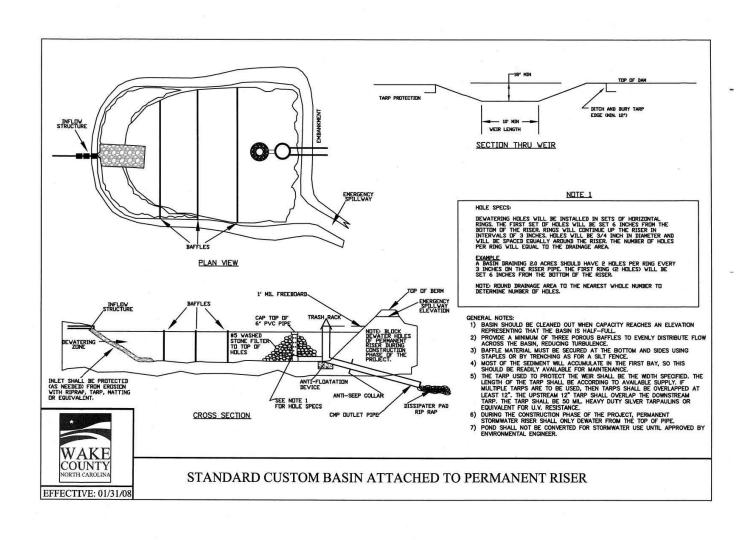


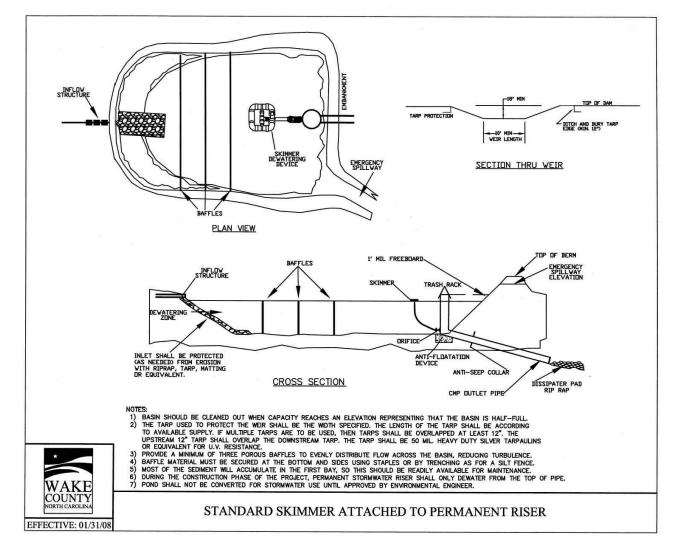


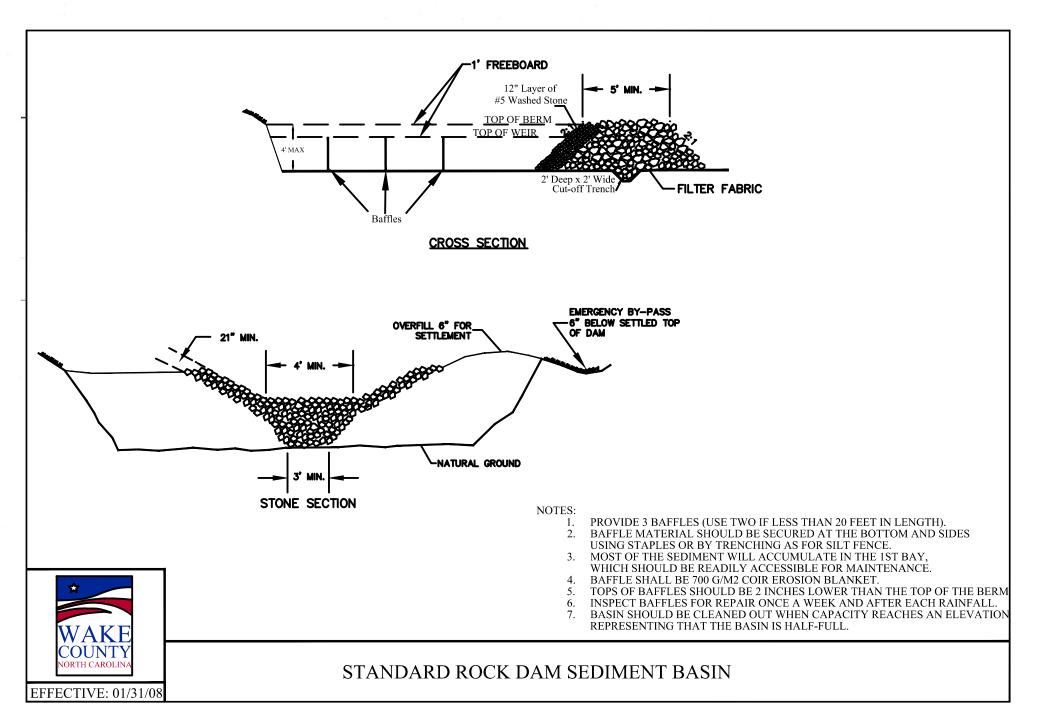


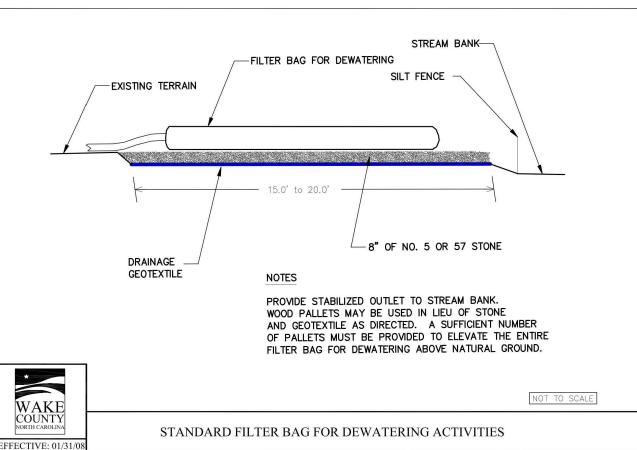












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Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale. By: \_\_\_\_\_\_ Town Engineer

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FINAL DRAWING - RELEASED FOR CONSTRUCTION



The John R. McAdams Company, Inc. 2905 Meridian Parkway Durham, NC 27713

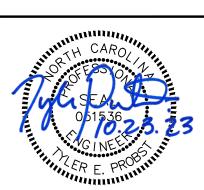
phone 919. 361. 5000 fax 919. 361. 2269 license number: C-0293, C-187

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# CLIENT

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# **REVISIONS**

NO. DATE

1 08. 18. 2023 REVISIONS PER TOK COMMENTS 2 09. 22. 2023 EC REVISIONS PER TOK COMMENTS

3 10. 11. 2023 REVISIONS PER TOK COMMENTS

4 10. 23. 2023 EC REVISIONS PER TOK COMMENTS

# PLAN INFORMATION

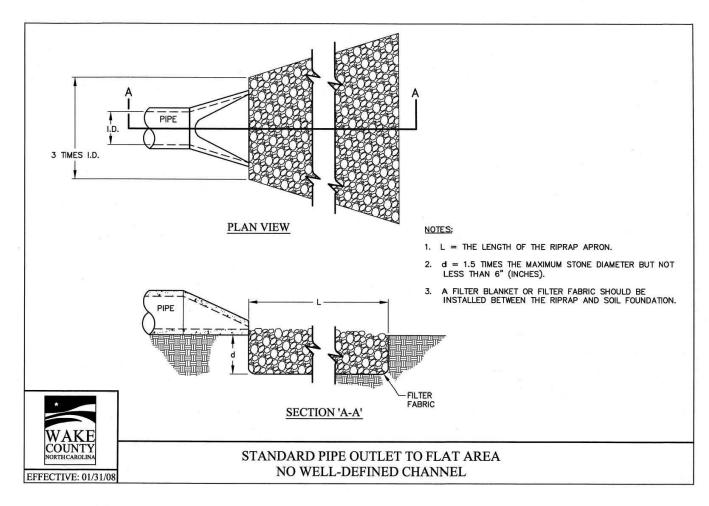
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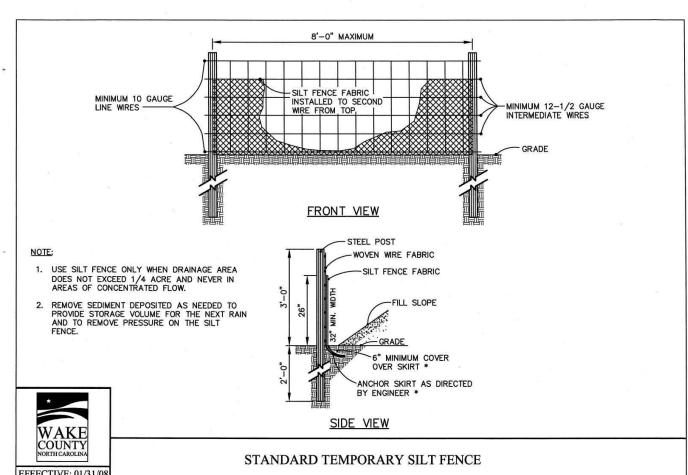
AGN21002-EC-D1 JCM / TEP MRC / LRS / RAD

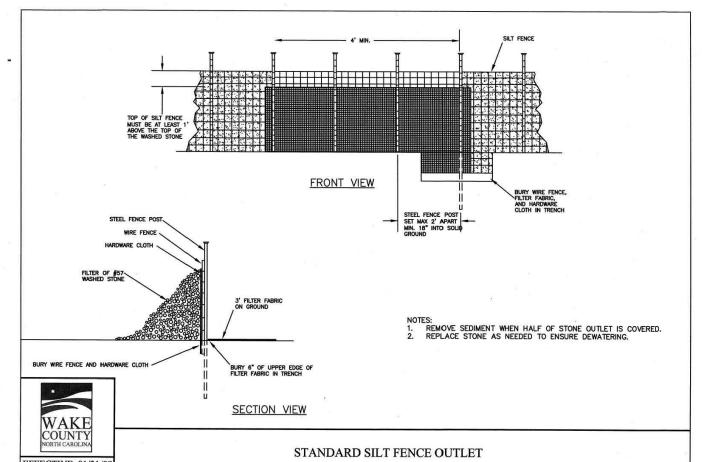
N.T.S. SCALE DATE 05. 05. 2023

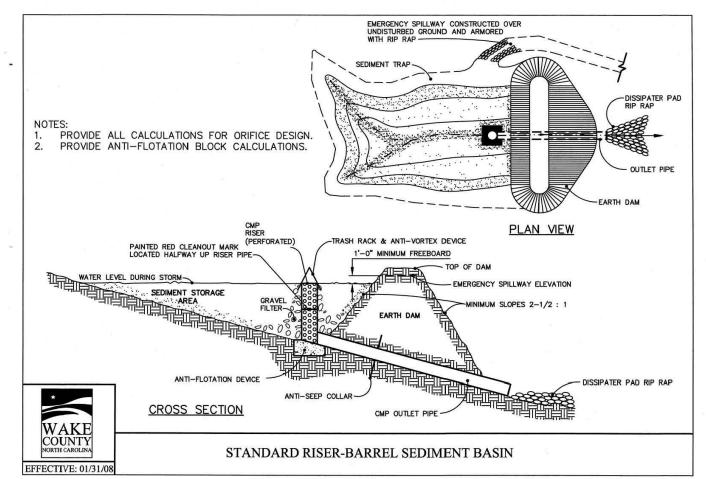
**SHEET** 

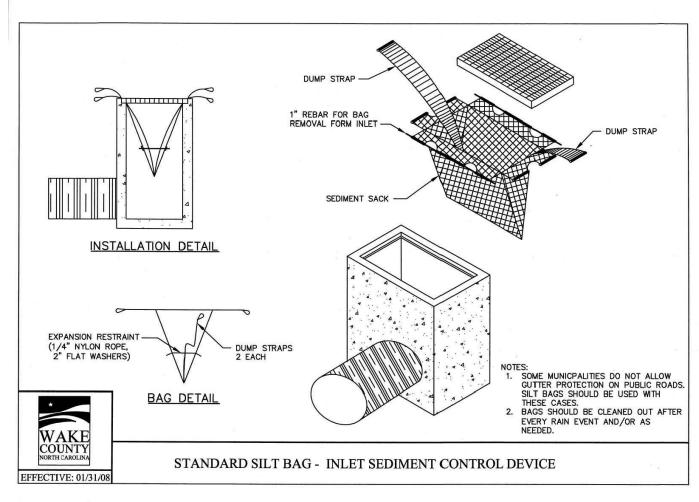
**EROSION CONTROL** 

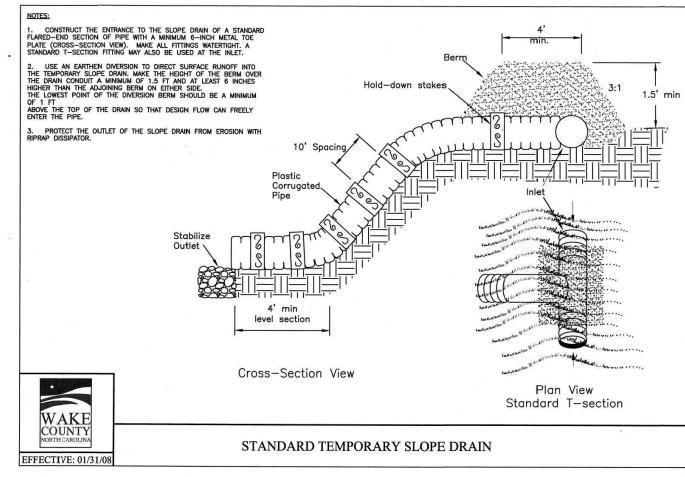


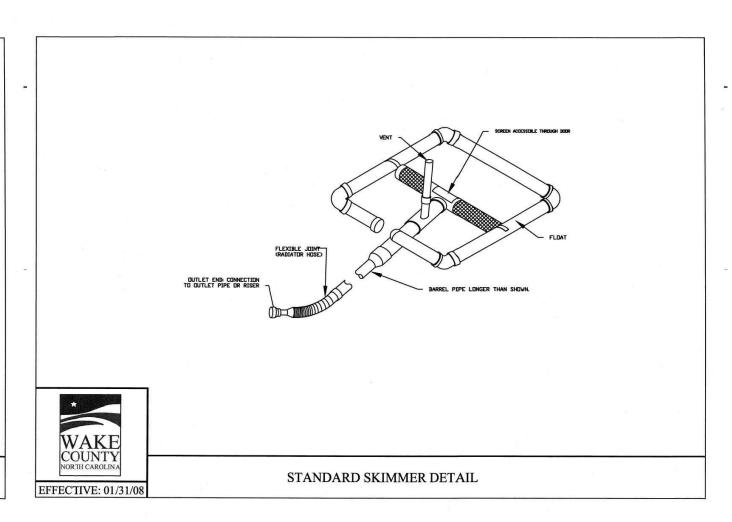












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Town Engineer

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FINAL DRAWING - RELEASED FOR CONSTRUCTION



The John R. McAdams Company, Inc. 2905 Meridian Parkway Durham, NC 27713

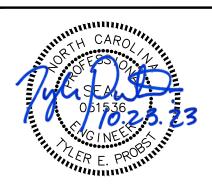
phone 919. 361. 5000 fax 919. 361. 2269 license number: C-0293, C-187

www.mcadamsco.com

# CLIENT

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# **REVISIONS**

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# PLAN INFORMATION

PROJECT NO. AGN-21002 FILENAME AGN21002-EC-D1 CHECKED BY JCM / TEP

MRC / LRS / RAD DRAWN BY SCALE N.T.S.

SHEET

DATE

**EROSION CONTROL** 

05. 05. 2023

# SELF-INSPECTION, RECORDKEEPING AND REPORTING

# **SECTION A: SELF-INSPECTION**

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

| Inspect  | Frequency<br>(during normal<br>business hours)  | Inspection records must include:   |
|--|---|--|
| (1) Rain gauge<br>maintained in<br>good working<br>order                 | Daily   | Daily rainfall amounts.  If no daily rain gauge observations are made during weekend holiday periods, and no individual-day rainfall information available, record the cumulative rain measurement for those attended days (and this will determine if a site inspection needed). Days on which no rainfall occurred shall be recorded "zero." The permittee may use another rain-monitoring devapproved by the Division.                            |
| (2) E&SC<br>Measures   | At least once per<br>7 calendar days<br>and within 24<br>hours of a rain<br>event ≥ 1.0 inch in<br>24 hours | <ol> <li>Identification of the measures inspected,</li> <li>Date and time of the inspection,</li> <li>Name of the person performing the inspection,</li> <li>Indication of whether the measures were operating properly,</li> <li>Description of maintenance needs for the measure,</li> <li>Description, evidence, and date of corrective actions taken.</li> </ol>   |
| (3) Stormwater<br>discharge<br>outfalls (SDOs)                           | At least once per<br>7 calendar days<br>and within 24<br>hours of a rain<br>event ≥ 1.0 inch in<br>24 hours | Identification of the discharge outfalls inspected,     Date and time of the inspection,     Name of the person performing the inspection,     Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration,     Indication of visible sediment leaving the site,     Description, evidence, and date of corrective actions taken.  |
| (4) Perimeter of site  | At least once per<br>7 calendar days<br>and within 24<br>hours of a rain<br>event ≥ 1.0 inch in<br>24 hours | If visible sedimentation is found outside site limits, then a record of the following shall be made:  1. Actions taken to clean up or stabilize the sediment that has let the site limits,  2. Description, evidence, and date of corrective actions taken, a  3. An explanation as to the actions taken to control future releases.   |
| (5) Streams or<br>wetlands onsite<br>or offsite<br>(where<br>accessible) | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours                | If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made:  1. Description, evidence and date of corrective actions taken, ar  2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this perm of this permit.  |
| (6) Ground<br>stabilization<br>measures                                  | After each phase of grading   | <ol> <li>The phase of grading (installation of perimeter E&amp;SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover).</li> <li>Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.</li> </ol> |

Ground Stabilization and materials handling practices for compliance with

plementing the details and specifications on this plan sheet will result in the construction

activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The

permittee shall comply with the Erosion and Sediment Control plan approved by the delegated

authority having jurisdiction. All details and specifications shown on this sheet may not apply

Required Ground Stabilization Timeframes

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the

• Temporary grass seed covered with straw or | • Permanent grass seed covered with straw or

• Appropriately applied straw or other mulch • Shrubs or other permanent plantings covered

Apply flocculants at the concentrations specified in the NC DWR List of Approved

Provide ponding area for containment of treated Stormwater before discharging

Store flocculants in leak-proof containers that are kept under storm-resistant cover

PAMSFlocculants and in accordance with the manufacturer's instructions.

or surrounded by secondary containment structures.

converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last

land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against

depending on site conditions and the delegated authority having jurisdiction.

Stabilize within th

many calendar day

after ceasing land

disturbance

# SELF-INSPECTION, RECORDKEEPING AND REPORTING

# **SECTION B: RECORDKEEPING**

1. E&SC Plan Documentation The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours:

| Item to Document  | Documentation Requirements  |
|---|---|
| (a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan. | Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation. |
| (b) A phase of grading has been completed.  | Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.   |
| (c) Ground cover is located and installed in accordance with the approved E&SC Plan.  | Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.   |
| (d) The maintenance and repair requirements for all E&SC Measures have been performed.  | Complete, date and sign an inspection report.   |
| (e) Corrective actions have been taken<br>to E&SC Measures.   | Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.  |

# 2. Additional Documentation to be Kept Onsite

In addition to the E&SC Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- (a) This general permit as well as the certificate of coverage, after it is received. (b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if
- shown to provide equal access and utility as the hard-copy records. All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. 40 CFR 122.41

# Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a Period of three years after project completion and made available upon request.

# NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

<u>Timeframe variations</u>

f slopes are 10' or less in length and are

7 days for slopes greater than 50' in

length and with slopes steeper than 4:1

7 days for perimeter dikes, swales, ditches,

7 days for perimeter dikes, swales,

ditches, perimeter slopes and HQW

210 days for Falls Lake Watershed

perimeter slopes and HQW Zones

other mulches and tackifiers

sufficient to restrain erosion

reinforcement matting

Hydroseeding

with mulch

retaining walls

• Geotextile fabrics such as permanent soil

Uniform and evenly distributed ground cover

Structural methods such as concrete, asphalt or

Rolled erosion control products with grass seed

not steeper than 2:1, 14 days are

Note: This detail sheet has been modified from the standard NCG01 format

THE NCG01 CONSTRUCTION GENERAL PERMIT

SECTION E: GROUND STABILIZATION

(a) Perimeter dikes,

swales, ditches, and

perimeter slopes

) Slopes steeper than

(b) High Quality Water

(HQW) Zones

(d) Slopes 3:1 to 4:1

flatter than 4:1

accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

techniques in the table below:

other mulches and tackifiers

without temporary grass seed

Plastic sheeting

· Rolled erosion control products with or

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

# EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids. Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

# LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available. Locate waste containers on areas that do not receive substantial amounts of runoff
- from upland areas and does not drain directly to a storm drain, stream or wetland. When feasible, either (1) cover waste containers when not being used, or (2)
- provide a similarly effective means designed to minimize the discharge of pollutants. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- 9. On business days, clean up and dispose of waste in designated waste containers

## PAINT AND OTHER LIQUID WASTE -10 days for Falls Lake Watershed unless there

- Do not dump paint and other liquid waste into storm drains, streams or wetlands. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

# EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of
- Select flocculants that are appropriate for the soils being exposed during five feet from the toe of stockpile. construction, selecting from the NC DWR List of Approved PAMSFlocculants. Provide stable stone access point when feasible. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
  - Stabilize stockpile within the timeframes provided on this sheet and in accordance
  - with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

# HERBICIDES, PESTICIDES AND RODENTICIDES

- accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is or surface water. If a spill occurs, clean area immediately.

# 4. Do not stockpile these materials onsite.

# HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.

3. Do not store hazardous chemicals, drums or bagged materials directly on the ground. Note: This detail sheet has been modified from the standard NCG01 format

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

# SELF-INSPECTION, RECORDKEEPING AND REPORTING

# **SECTION C: REPORTING**

1. Occurrences that must be reported

Permittees shall report the following occurrences: (a) Visible sediment deposition in a stream or wetland.

- (b) Oil spills if:
- They are 25 gallons or more, They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or They are within 100 feet of surface waters (regardless of volume).
- a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (b) Anticipated bypasses and unanticipated bypasses.
- c) Noncompliance with the conditions of this permit that may endanger health or the environment.

# 2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800)

| Occurrence  | Reporting Timeframes (After Discovery) and Other Requirements  |
|---|--|
| (a) Visible sediment<br>deposition in a<br>stream or wetland  | <ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.</li> <li>If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.</li> </ul> |
| (b) Oil spills and<br>release of<br>hazardous<br>substances per Item<br>1(b)-(c) above                                | <ul> <li>Within 24 hours, an oral or electronic notification. The notification<br/>shall include information about the date, time, nature, volume and<br/>location of the spill or release.</li> </ul>   |
| (c) Anticipated<br>bypasses [40 CFR<br>122.41(m)(3)]  | A report at least ten days before the date of the bypass, if possible.  The report shall include an evaluation of the anticipated quality and effect of the bypass.  |
| (d) Unanticipated<br>bypasses [40 CFR<br>122.41(m)(3)]  | <ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>  |
| (e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(I)(7)] | Within 24 hours, an oral or electronic notification.  Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).  |

Division staff may waive the requirement for a written report on a



case-by-case basis.



3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WIT SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

# **CONCRETE WASHOUTS**

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- . Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence. Install temporary concrete washouts per local requirements, where applicable. If an
- alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or
- discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- . Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- . A sign should be installed directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75 capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

- Store and apply herbicides, pesticides and rodenticides in accordance with label
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of
- possible or where they may spill or leak into wells, stormwater drains, ground water

- . Place hazardous waste containers under cover or in secondary containment.

# of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale. By: \_\_\_\_\_\_ Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE

PUBLIC UTILITIES, AND NCDOT (WHERE APPLICABLE)

ENGINEERING DESIGN AND CONSTRUCTION STANDARDS

Town Certification. This design has been reviewed by the Engineer for the Town

WITH THE CURRENT TOWN OF KNIGHTDALE, CITY OF RALEIGH

FINAL DRAWING - RELEASED FOR CONSTRUCTION



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# CLIENT

ALLIANCE GROUP OF NC, LLC 7208 FALLS OF NEUSE RD, SUITE 101 RALEIGH, NORTH CAROLINA 27615 JACOB ANDERSON PHONE: 919. 239. 9486



# **REVISIONS**

NO. DATE 1 08. 18. 2023 REVISIONS PER TOK COMMENTS

2 09. 22. 2023 EC REVISIONS PER TOK COMMENTS 3 10. 11. 2023 REVISIONS PER TOK COMMENTS

4 10. 23. 2023 EC REVISIONS PER TOK COMMENTS

PLAN INFORMATION

PROJECT NO. AGN-21002 FILENAME AGN21002-EC-D1 CHECKED BY JCM / TEP

SCALE **SHEET** 

MRC / LRS / RAD

N.T.S.